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CANADA:
TO-DAY AND TO-MORROW

PARLIAMENT BUILDINGS, OTTAWA

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CANADA

TO-DAY AND TO-MORROW

BY

ARTHUR E. COPPING

WITH SIX FULL-PAGE COLOUR PLATES BY
HAROLD COPPING
AND THIRTY-FOUR ILLUSTRATIONS IN
BLACK-AND-WHITE

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TO THE

HON. FRANK OLIVER

Minister of the Interior, Canada

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CANADA

TO-DAY AND TO-MORROW

CHAPTER I

THE DOMINION'S DESTINY

For those who mark the current of events, Canada's great destiny is written plain. Canada in a few decades must possess more people and more realised wealth than Great Britain. Whether the centre of Imperial control will then cross the Atlantic is a point on which prophecies differ. Memories enshrined in Westminster Abbey will tend to conserve the ancient seat of government. Yet there is weight in the surmise that the logic of numbers will ultimately prevail.

Canada's future is foretold in the past growth and present might of the United States. The same traditions, the same climate (over areas of chief significance), the same resources, and—most important of all—the same method of expansion, will produce, and are producing, the same result.

The history of the United States is contained in one word—immigration. That country has absorbed myriad migrants from northern regions of the eastern hemisphere; and it has absorbed most of them in recent times. Screw steamships are responsible. The population of the United States was about 17,000,000 when the first regular Atlantic service was founded by Samuel

Cunard—the father of modern America. Only seventeen millions—less than the present population of Brazil! Such was the American nation when Charles Dickens visited it. The growth of population has gained in momentum with the increase and improvement of liners. We now have 92,000,000 cousins. Twenty millions—or nearly a quarter of the huge nation—date no farther back than Queen Victoria's Diamond Jubilee. The numerical strength of the Republic has more than doubled since the Tichborne trial.

Immigration, of course, rests upon advertising—a process which is far from being as modern as it sounds, the word occurring in the Bible (Numbers xxiv. 14 and Ruth iv. 4). The United States, ever since their foundation, have been sedulously advertised throughout Europe, partly by books and news-sheets, mainly by private correspondence. The prosperous settler writes to relatives and friends in the Old Country, urging them to come out; and such letters are the most potent stimulus that immigration can receive. They constitute advertising in its most convincing form. They represent an ever-expanding force working silently and unseen. I talked of this matter with Mr. J. Obed Smith—an authority—and he had the right word for what takes place. Those who go in advance "beckon" to those who follow. The United States are still receiving about a million immigrants every year—the result of beckoning.

But a change has come over the transatlantic exodus. Previously there was only one destination—now there are two. Down to a few years ago the average person, when he spoke or thought of emigrating, had only the United States in his mind. It was called "going to America." Nowadays the word emigra-

tion, when you see it in print, is apt to suggest Canada. Of course there is no abatement in the great automatic movement that is of cumulative force. The millions who were beckoned to the United States are themselves beckoning other millions. But the thousands who have gone to Canada are also beckoning—and with more reason.

Simultaneously the attractions of the Dominion are being proclaimed through the machinery of publicity. Modern means of stimulating public interest, no less than modern means of quick, safe and cheap transportation, give the present day a great advantage, so far as populating a distant country is concerned, over an era when newspapers cost fourpence and passenger ships were innocent of steam. When the United States were at an early stage of development, and urgently needing people, there was no halfpenny press through which to communicate with the democracy of Europe, for the democracy of Europe had not learnt to read.

Canada was discovered by Canada about fifteen years ago, by the United States a little later, by England —well, England is discovering Canada now. For we are a slow, if sure, people. One day England will discover the British Empire. Meanwhile we are ruled by a generation which was taught at school that Canada is one of our Colonies.

In thinking of Canada the earnest and logical man in the street has been led inevitably into a gigantic misconception. As a matter of fact, without a sense of humour it is difficult to make head or tail of the history of North America. Every schoolboy has been taught that Canada existed before the United States were created. Yet the United States have grown to be a mighty and wealthy nation of 92,000,000 people; while

Canada, with a slightly larger area, still has a population of only 8,000,000. Naturally enough, the man in the street concluded there was something wrong somewhere with Canada.

One can, of course, only elucidate the position by stating facts which seem, on the face of them, quaint, not to say funny. As the upshot of a fierce war that took place a century and a quarter ago, part of North America became an independent country, while another part remained in allegiance to the English sovereign; and the curious circumstance has to be noted that, ever since then, Great Britain has been sending out millions of men, not to the country she retained, but to the country she lost. To be strictly accurate, those people were not sent—they went. They succumbed to the spell of the newly arisen United States. As though to heap coals of fire on the heads of those who had revolted from our rule and beaten us in battle, we set to work to make them mighty among the nations of the earth; British contributions to that end heavily outweighing those of other peoples. Meanwhile—there being apparently no end to our self-abnegation—we were content to leave our own part of North America practically unrecruited by emigrants from the British Isles. Nay—the daughter becoming, as would seem, infected by the mother's magnanimity—our own part of North America made generous contributions to the neighbouring population, it being the strange fact that during the past fifty years 3,250,000 people have gone from Canada to the United States—indigence sparing of its poverty to increase the riches of affluence.

Of those developments, which wear so quixotic an aspect in the retrospect, the explanation lies, of course, in the truism that unity is strength. For nearly a

century North America consisted of two sections—the United States and the Ununited Provinces. Union, consolidation, federation—those are the masterful words in the story of nations. What sort of position in the world would Essex have attained had Essex acted independently of Cumberland and the other English counties? Where would Perthshire have been without the political link with Cork? Similarly, how would Massachusetts have ever become a big power single-handed, and who would care a rap for the Stars and Stripes if they waved only over Pennsylvania? The separate States might have asked for people and respect, but their individual voices would not have carried across the Atlantic. It was only because they spoke in unison that they were audible all over the world.

And here we come to close quarters with the misconception still lingering in the popular mind. The man in the street has confused two Canadas—historic Canada, which dated back to the sixteenth century and comprised only portions of the existing Eastern provinces, and modern Canada, which extends from the Atlantic to the Pacific, and is less than forty years old. It is as though the name England had originally applied merely to portions of Kent and Sussex. The federation of the distinct countries of British North America began in 1867, and was not completed until 1873. Thus the reason why Canada did not, until recent years, begin to grow is because Canada, until recent years, did not exist. Previously, owing to circumstances that will be traced in a later chapter, little was known of the bulk of the country. The setting up of the Federal Government opened the way to knowledge. That knowledge is still incomplete, being representative rather than general. But already—as this book will, I

hope, help to prove—there is justification for the belief that the attractions and resources of Canada are not inferior to those of the United States . . . .

And now, being through with our prologue of broad facts, let us pass to personal experiences of the voyage to Canada. That week's imprisonment in a travelling hotel is, surely, the ideal holiday. Thrice have I crossed in the saloon and once in the steerage—and a button for the difference! In the great liners of to-day there are comfortable quarters and wholesome meals for everybody, whether he pays £18, £10s. 5s., or £5 15s. As a rule I find third-class emigrants more interesting to talk to than first-class poker-players. On the other hand, grand pianos are preferable to concertinas, and it is wondrous pleasant, when at sea, to stroll on Turkish carpets amid alcoves of growing ferns, palms and flowers; while I personally am alive to the advantages of a spacious smoking-room panelled in carved oak, a well-stocked library, and a writing lounge furnished with necessaries and taste (to glance at a few features of such floating temples of luxury as the *Royal George*). But air, sea and sky—the common property of all classes—are of chief account.

Let me dip among the memories of my first crossing, which happened nearly nine years ago.

For two days our ship was followed by a dozen gulls—strong birds, with yellow bodies, and having black tips to their long wings. By day they hovered in our wake, eager for whatsoever the cook might discard through a porthole; by night—I was invited to believe—they snatched a little slumber in the rigging. But those sturdy aviators did not accompany us all the way to Canada.

You cannot see, you can only infer, that the

Atlantic Ocean is large. At no time in any direction does the eye behold more sea than is visible from Hastings pier. During the long, luxurious day and all through the night the vessel goes on, on, and still on. The throbbing propeller makes with splashing water the music that lulls you to sleep at night, that greets your waking in the morning. For ever the sea is rushing by in frothy confusion. We career through a path mottled with foam. Between the whirling splashes and streaks of white the eye pierces a slatey-green, with the myriad tiny bubbles ascending as a grey cloud.

You look in grateful silence upon the Atlantic skies —purples and lemon-yellow in the east, gold and flaming crimson in the west. Later joys are the moonshine and the phosphorous glowing on the busy, musical, unseen waves.

One afternoon a little bird came to us, perching awhile on the bridge stairs. I did not see him, but they told me of his grey feathers fluttering deranged in the breeze, and the balance of testimony proclaimed him a sparrow. Wondrous welcome little visitor from the land. For to live nearly a week on the boundless sea is to find yourself with tender recollections of meadow and dell, of oak trees and the bumble bee.

Not always did white crests figure in the wide circumference. Once the surface sobered to a polished blue, and as we loitered in the burning sunshine the decks felt hot underfoot. Waggish Nature chose that tropical interlude for an Arctic exhibition. We saw icebergs and whales.

In this enlightened age it may seem superfluous to describe either. I shall give my impressions of both, and for this reason: each was wholly otherwise than

I had expected to find it. The whale at sea is very unlike a whale. In our first experience—a creature some two miles away—again and again we saw the jet of water rise as a column of white fluffiness out of a little area of surface commotion. It was easy to infer some animal was causing the upheaval, but for long he abstained from presenting any part of his anatomy to our view. At last he so far satisfied our curiosity as to show us a few yards of the top of his back. The oblong, rounded piece of conspicuous blackness performed a sort of greasy curve, a large and handsome fin travelled round the upper edge, and then Mr. Whale, again wholly immersed, playfully re-engaged in squirting part of the Atlantic Ocean up in the air.

Icebergs in the sunshine are superlatively beautiful. I had expected an iceberg to look like ice. It suggests, rather, a mountain of loaf sugar or alabaster. It is white with the tender, dazzling whiteness of a swan's breast. Its surface is of milky, silky snow. Moulded in soft contour, it is rich in fanciful, protruding shapes.

A distant berg, floating towards Newfoundland, was revealed in our glasses as two prodigious Egyptian pyramids. Another was half a mile away, aground off Belle Isle. It exhibited, as a conspicuous feature on the windward side, a great seal snorting the air. When we came to leeward the entire mass was seen to be a headless lion, the hind legs adjusted to a squatting attitude, the spinal vertebræ visible up the mountain slope of the creature's back.

DUFFERIN TERRACE AND LOWER TOWN, QUEBEC

CHAPTER II

RETROSPECT

ONE's first impressions of Quebec yield a joy that cannot be recaptured on subsequent visits; yet the better you get to know that old city, the more you love it.

There was no moon shining when, nine years ago, a ship that had voyaged for days across the sea, and for hours through the night, brought me suddenly into view of an escarpment aglow with myriad friendly lights. And soon a quaint old Frenchman in a white hat was driving me in a quaint old carriage up quaint, steep streets where lamp-light gave glimpses of walls of naked rock and mellow brickwork, of venerable gabled houses with green shutters, of noble buildings grey with antiquity, and of stately monuments standing amid leafy gardens, with here and there a moss-grown cannon peeping out of its crumbling embrasure. Nor was it long before, in the garden of the Château Frontenac—that huge, handsome hotel—I was stealing nasturtium blooms.

Next day revealed how beautiful is the situation of Quebec. Standing on Dufferin Terrace—that superb promenade running along the brow of the cliff—you look out upon the great blue river sweeping through a landscape of purple mountains. Quebec has been well defined as "a small bit of mediæval Europe perched upon a rock," and Charles Dickens wrote of "its giddy

heights, its citadel suspended, as it were, in air; its picturesque steep streets and frowning gateways."

The old French capital is a pleasure resort. Thousands of American tourists visit it every year; golf is played on the battlefield where Wolfe fell victorious; and the city's ice carnivals and other winter frolics are famous. The old French capital is also of growing commercial importance, and its industries must receive a great impetus from the new St. Lawrence bridge—the largest cantilever structure in the world—and the projected dock extensions. But the old French capital commands admiration mainly for its age and its associations. Of all the fine Canadian cities it is the finest and the least Canadian. Quebec even possesses two slums—the only two slums, I verily believe, in the entire Dominion; and they are far too picturesque to be demolished.

It is surprising to find such an obvious piece of the Old World at the threshold of the New World; and Quebec's antiquity is emphasised when, on travelling through the Dominion, one notes the modern aspect of the other cities. Clues to that contrast will be found in Canada's lop-sided history.

Indeed, to look at the Dominion through the historian's telescope is to be baffled by a picture that will not get into focus. An eastern portion is full of background, middle-distance and foreground; southern and western strips reveal nothing but foreground; a central northern region has detail only in the middle distance; and the bulk of the area is equally without definition here, there and beyond. In other words, one part of the Dominion has much history, other parts have some, and many parts have none.

As I have already hinted, the word "Canada" is a

territorial ambiguity, since it applies both to a little old country (with a history commencing in the year 1000, when Icelandic settlers in Greenland discovered Labrador) and to a large new country (with a history commencing in 1873, when Confederation was completed). In reviewing the evolution of the Dominion, therefore, it is difficult to keep history in anything like a proportionate relation to geography. Ancient Canada, being so rich in material for the historian, is apt to monopolise nearly all his space. Beginning with events contemporaneous with the Saxon era in England, he plods through the centuries, peppering his pages with memorable dates, unrolling a long scroll of illustrious names, tracing the varying fortunes of two races and three nationalities in their struggles for supremacy, and recording bloody battles innumerable. When he has done all that, he finds himself with latitude for only vague and brief mention of the bulk of the Dominion; and his readers, thinking they have been reading a history of Canada (whereas they have only been reading a history of a fraction of Canada) are left with an unfortunate impression that Canada is an old, instead of a new, country.

To follow the course of events, one must eliminate existing geographical boundaries from one's mind, and think of eastern North America (stretching along the present seaboards of Canada and the United States) as a whole.

Voyagers from England and Portugal got there first, towards the close of the fifteenth century; but France and Spain took the lead in forming colonies. The situation soon resolved itself into a rivalry between the French and the English.

In 1535 Jacques Cartier explored the St. Lawrence

(which he named), and advanced as far as an Indian town that he christened Mont Royal (since corrupted into Montreal); and afterwards there came other French expeditions, whose attempts to found settlements were frustrated by Indian hostility. At the opening of the seventeenth century, however, Samuel de Champlain established in Acadia (now Nova Scotia) the first European colony that took root within the boundaries of the present Dominion; and in 1608 he visited the St. Lawrence and founded the City of Quebec. Thus was brought into being "New France" —a large territory which included eastern Canada of to-day and stretched south across the existing international boundary line. There was also a rival colony, known as "New England," which extended north from Virginia.

The struggle between Great Britain and France continued, with intervals of peace and with an ebb and flow of fortunes, for a century and a half; and in the history of this period the most inspiring chapter is that which tells of the unflinching zeal and dauntless courage of Roman Catholic priests who, penetrating to the interior of the country, sought to carry Christianity and civilisation to the Indians.

By the Treaty of Utrecht (1713) the possession of Hudson Bay (the history of which I shall glance at later), Acadia and Newfoundland was definitely vested with Great Britain, France retaining authority over a vast stretch of territory. Thirty years afterwards the war of the Austrian Succession justified a resumption of hostilities, which were interrupted by the Treaty of Aix-la-Chapelle. A few years later the two Powers reached the final stage of their long contest for mastery in North America; and, following Wolfe's victory at

Quebec in 1759, French rule in Canada came to an end.

But the French people remained, and their descendants remain, in Canada; and their presence there—those two million fine, happy, prosperous French-Canadians, who combine loyalty to the British Empire with a love for France—supplies, I think, the noblest object-lesson in international fraternity anywhere to be found on the earth. It is an object-lesson that grows in distinctness as our eyes open to new possibilities of unarmed amity; for at last we are slowly awakening to the knowledge that brotherhood is a higher interest of the human race, and may even call for a loftier type of bravery than bloodshed.

There was, of course, some little initial unrest in the Franco-English colony, but this was largely allayed when, in 1774, the British Parliament passed the Quebec Act, which restored the French civil code and defined Canada as extending from Labrador to the Mississippi, and from the watershed of Hudson Bay to the Ohio—in other words, as including the present Provinces of Quebec and Ontario, and a number of States over which the Stars and Stripes now float. Then came the War of Independence, which turned our brothers into our cousins, and caused the Great Lakes to be Canada's southern boundary, instead of her waist-belt.

The English population of Canada—far smaller than the French population—was now increased by the arrival from the south of 25,000 persons who, loyal to the old tie with Great Britain, refused their allegiance to the newly-created United States. French and English were soon united in a desire to enjoy such constitutional privileges as had already been granted to the Maritime Provinces; but while the majority were

anxious that their own national traditions should be followed, the minority wished for institutions modelled on English lines. The British Government solved the problem by splitting Canada into two—an Upper Canada for the English, and a Lower Canada for the French—and giving to each a Legislature of its own, though a Legislature in which the people's representatives were under the thumb of Crown nominees.

The war between the United States and Great Britain, in 1812-14, exposed the two Canadas and the Maritime Provinces to a severe ordeal, through which they came triumphant; and afterwards our French and English fellow-subjects resumed their agitation for a full measure of popular government. They went ultimately to the length of rebellion; and then it was not long before the Home Government granted their desire. Friction had occurred between the two Canadas on questions of revenue, and so, by the Act of 1840 that conceded a democratic constitution, these two Canadas, after half a century of separation, were again made into one Canada under one Legislature; the two halves of a political whole being now distinguished as Canada East and Canada West. Happily, however, a clash of interests arose between the French population and the English—happily, I say, because it led to the union, in 1867, of Canada West and Canada East (thenceforward to be known as the Provinces of Ontario and Quebec) with Nova Scotia and New Brunswick; and this was the first stage of Confederation, a process whereby the name "Canada" was transferred to the great country, stretching from ocean to ocean, which bids fair to develop wealth and population like the United States of America, and to become the foremost nation of the British Empire.

I have only told, in broad outline, the story of Eastern Canada—that part of the Dominion which holds the accumulated interest of stirring vicissitudes experienced over a period of four hundred years. We will now turn to the only other part of the Dominion that has a history stretching back to the Middle Ages. I refer to the Hudson Bay region.

Man is a toy in the hands of Time. Things he does in one century are apt, in the light of another, to assume the character of a droll misuse of opportunity. The early history of the Hudson's Bay Company tells, in effect, of men who worked in a rich gold mine and collected nothing but quartz.

In 1610 Henry Hudson—that glorious, pathetic hero—discovered the great northern indentation in the map of Canada; and it was re-discovered overland, about sixty years later, by two dashing adventurers from "New France"—Medard de Groseillers and Pierre Radisson, who returned from Hudson Bay with rich booty, of which they were despoiled by the authorities at Quebec. The two indignant Frenchmen went with the story of their wrongs to France, where they were treated with laughing contempt. Then they crossed to England and told our King all about it. Charles II. (who was staying at Oxford, to avoid the plague of London) pricked up his ears, and—some of his followers being minded to invest their money in a promising business speculation—a Royal Charter was granted to "Gentlemen Adventurers trading to Hudson's Bay." His Majesty did the thing handsomely while he was about it; for the Charter gave the Adventurers all the country and all it contained for all time.

What was the booty Radisson and Groseillers (whom, by the way, Charles II. insisted upon calling

"Mr. Gooseberry") had brought from Hudson Bay? It took the form of 600,000 beaver skins. Resident in that part of the world are many four-footed creatures which, because the weather is apt to be cold, are provided by nature with warm, hairy coats; and the fur that is a necessary for them is a luxury for man—and especially for woman. Accordingly, the Adventurers sent their ships to Hudson Bay for pelts they could turn into pelf. The actual trapping and skinning was done by the Indians, from whom the Adventurers' agents secured the valuable furs in exchange for tobacco, shot, brandy, and other commodities of civilisation. Sometimes, not content with killing the beaver, the mink, and the silver fox, the Indians killed the Adventurers' agents, and vice versa; but in a general way the natives and the visitors traded on a footing of mutual toleration —business being done on these lines: six beavers for one blanket, half a pound of beads for one beaver, twelve buttons or twenty fish-hooks for ditto, and twelve beavers for one gun. The Hudson's Bay men built themselves forts, and their commercial transactions with the red man were always conducted through a small wicket in the palisades.

Nor were picturesque touches lacking at the London end. Prince Rupert was the governor, and for colleagues he had a committee who, by way of tempering the austerity of the company's affairs, permitted occasional latitude to a festive spirit. Lord Preston having rendered the company a service, the warehouse keeper was instructed to deliver "as many black beaver skins as will make my lord a fine covering for his bedd"; and, in gratitude for favours from a more exalted quarter, "two pairs of beaver stockings are ordered for the King and the Duke of York." The Adventurers were equally

THE ONLY SLUM IN CANADA—LITTLE CHAMPLAIN STREET, QUEBEC

alive to domestic claims on their goodwill, as may be inferred from orders "to bespeak a cask of canary for ye governor," and "a hogshead of claret for ye captains sailing from Gravesend."

"One of the quaintest customs that I found in the minute books," writes Agnes C. Laut, the company's painstaking historian, "was regarding the home-coming ships. The money that had accrued from sales during the ships' absence was kept in an iron box in the warehouse on Fenchurch Street. It ranged in amount from £2,000 to £11,000. To this, only the governor and deputy-governor had the keys. Banking in the modern sense of the word was not begun till 1735. When the ships came in, the strong box was hauled forth and the crews paid. . . . An average of ten thousand beaver a year was brought home. Later, otter and mink and marten became valuable. These, the common furs, whalebone, ivory, elks' hoofs and whale blubber made up the list of the winter sales. Before the days of newspapers, the lists were posted in the Royal Exchange, and sales held 'by candle' in lieu of the auctioneer's hammer—a tiny candle being lighted, pins stuck in at intervals along the shaft, and bids shouted till the light burned out. One can guess with what critical caress the fur fanciers ran their hands over the soft nap of the silver fox, blowing open the fur to examine the depth and find whether the pelt had been damaged in the skinning. Half a dozen of these rare skins from the fur world meant more than a cargo of beaver. What was it, anyway—this creature; rare as twentieth-century radium, that was neither blue fox nor grey, neither cross nor black? . . . Was it senility or debility or a splendid freak in the animal world like a Newton or a Shakespeare in the human race? Of all the scientists from

Royal Society and hall of learning, who came to gossip over the sales at the coffee houses, not one could explain the silver fox."

The Adventurers' right to the greater part of the present Dominion of Canada was disputed by the French. A nation went to war with a company. France dispatched fighting fleets. So did the Adventurers; for, what with the high price of silver fox and the low price of beads, the iron box at Fenchurch Street kept well filled. Hudson Bay was again and again the scene of horrible carnage; now one party having the best of it, now another. Anybody wishing to have his eyes opened to what happened between 1682 and 1713 should read "The Conquest of the Great North West," by the authoress I have just quoted. Let us fix our gaze on one typical scene in the grim retrospect.

In 1697 five French men-of-war arrived in Hudson Straits under the command of the redoubtable Iberville. On his ship, the *Pelican,* forty men were down with scurvy. On another, the *Wasp,* a gun broke loose during a gale, crushing several of the crew. For eighteen days the little fleet was ice-jammed in an impenetrable fog. Later, the *Pelican* became separated from the rest of the fleet. Seeing three ships on the horizon, Iberville hastened towards the supposed friends. They proved to be English men-of-war, the *Hampshire,* the *Dering,* and the *Hudson's Bay.* When the French commander made that discovery, it was too late to flee. "Quickly, ropes were stretched to give the mariners hand-hold over the frost-slippery deck. Stoppers were ripped from the fifty cannon, and the batterymen below, under La Salle and Grandville, had stripped naked in preparation for the hell of flame and heat that was to be their portion in the impending battle. Bien-

ville, Iberville's brother, swung the infantrymen in line above decks, swords and pistols prepared for the hand-to-hand grapple. De la Potherie got the Canadians to the forecastle, knives and war hatchets out, bodies stripped, all ready to board when the ships knocked keels. . . . The *Hampshire* let fly two roaring cannonades that ploughed up the decks of the *Pelican* and stripped the French bare of masts to the hull. At the same instant, Grimmington's *Dering* and Smithsend's *Hudson's Bay* circled to the left of the French and poured a stream of musketry fire across the *Pelican's* stern. At one full blast, forty French were mowed down; but the batterymen below never ceased their crash of bombs straight into the *Hampshire's* hull."

For four hours the battle raged. "The ships were so close, shout and counter-shout could be heard across decks. Faces were singed with the closeness of the musketry fire. Ninety French had been wounded. The *Pelican's* decks swam in blood that froze to ice, slippery as glass, and trickled down the clinker boards in reddening splashes. Grape shot and grenade had set the fallen sails on fire. Sails and mast poles and splintered davits were a mass of roaring flame that would presently extend to the powder magazines and blow all to eternity. . . . Still the batterymen below poured their storm of fire and bomb into the English hull. The fighters were so close, one old record says, and the holes torn by the bombs so large in the hull of each ship, that the gunners on the *Pelican* were looking into the eyes of the smoke-grimed men below the decks of the *Hampshire*. For three hours the English had tacked to board the *Pelican*, and for three hours the mastless, splintered *Pelican* had fought like a demon to cripple her enemy's approach. The blood-grimed, half-naked men had

rushed *en masse* for the last leap, the hand-to-hand fight, when a frantic shout went up. . . . The batteries of the *Hampshire* had suddenly silenced. The great ship refused to answer to the wheel. That persistent, undeviating fire bursting from the sides of the *Pelican* had done its work. The *Hampshire* gave a quick, back lurch. Before the amazed Frenchmen could believe their senses, amid the roar of flame and crashing billows and hiss of fires extinguished in an angry sea, the *Hampshire,* all sails set, settled and sank like a stone amid the engulfing billows. Not a soul of her two hundred and fifty men—one hundred and ninety mariners and servants, with sixty soldiers—escaped.

"The screams of the struggling seamen had not died on the waves before Iberville had turned the batteries of his shattered ship full force on Smithsend's *Hudson's Bay.* Promptly the *Hudson's Bay* struck colours, but while Iberville was engaged boarding his captive and taking over ninety prisoners, Grimmington on the *Dering* showed swift heel and gained refuge in Fort Nelson."

Iberville had not noticed the gathering storm, which now broke upon him. "Mist and darkness and roaring sleet drowned the death cries of the wounded, washed and tossed and jammed against the railings by the pounding seas. The *Pelican* could only drive through the darkness before the storm flaw; 'the dead,' says an old record, 'floating about on the decks among the living.' The hawser that had towed the captive ship snapped like thread. Captor and captive in vain threw out anchors. The anchors raked bottom. Cables were cut, and the two ships drove along the sands. The deck of the *Pelican* was icy with blood. Every shock of smashing billows jumbled dead and dying *en masse.*

The night grew black as pitch. The little railing that still clung to the shattered decks of the *Pelican* was now washed away, and the waves carried off dead and wounded. Tables were hurled from the cabin. The rudder was broken, and the water was already to the bridge of the foundering ship, when the hull began to split, and the *Pelican* buried her prow in the sands, six miles from the fort."

The boats had been shot away. Men swam ashore with guns and powder-horns between their teeth. They also strove to tow rough rafts on which the wounded were placed. Eighteen lives were lost in the darkness. As for the survivors, "for twelve hours they had fought without pause for food, and now, shivering round fires kindled in the bush, the half-famished men devoured moss and seaweed raw. Two feet of snow lay on the ground, and when the men lighted fires and gathered round them, they became targets for sharpshooters from the fort, who aimed at the camp fires.

Then three of Iberville's other ships arrived, one without her steering gear, another without her rudder. The *Violent* had foundered in a storm. A Frenchman went with flag of truce and bandaged eyes to demand surrender of the fort. Its English garrison sent him back with "No" for his answer. Under cover of fog, the French landed and erected their cannon in the very teeth of the fort. A mutual bombardment occupied two days. Then the French sent another emissary to explain that, if the fort did not surrender, no quarter would be given. "Quarter be cursed!" thundered Bailey, the English commander. Afterwards the palisades were hacked down; and when the inevitable capitulation took place, the garrison marched out with flags flying, to the defiant music of fife and drum.

Truly, the French and English of those days were game and tough, and not lacking in the more conspicuous qualities of the tiger and the bulldog. For all those ships and men to have been fighting over the beaver and the silver fox, and the filling of that iron box in Fenchurch Street, gives the modern mind a good deal to think about. As one reads the story of fierce international hatred, of incursions and pillage and crafty ambuscades, of frequent battles on land and water, Hudson Bay figures to the imagination as a frozen inferno of bloodshed, famine, disease and human anguish unspeakable. The rival traders and raiders timed their death-grips as far as possible to correspond with official periods of warfare between France and Great Britain; but European compacts did not always carry weight with the moving spirits of Hudson Bay. However, the Peace of Utrecht left the company at last in uncontested possession of that huge area, and brought to a close the Adventurers' long maritime struggle. Their warlike operations, however, were not over, for presently the company became involved in sustained and sanguinary inland strife.

When the French King held sway in "New France," certain of its citizens, acting under Royal licence, adventured into the forests to collect furs from the Indians. Strangely enough, the extinction of French authority in Eastern Canada gave a great impetus to that French industry. Licences being no longer needed, an augmented army of daring spirits went forth in canoes to voyage into the unknown territories, and barter beads and brandy for the red man's furry booty. Merchants at Montreal fitted out the dashing *voyageurs,* and waxed opulent from the sale of skins. A fierce rivalry grew among the enterprising Frenchmen, who strove to out-

vie one another in hospitality to the much-sought-after Indians. There were incidents like this:

A party of drunken Crees became so obstreperous in their demand for more rum that three traders, who had a little fort as shelter, sought to strengthen their position by adding laudanum to the liquor. One Indian drank too much and died, whereupon his enraged followers smashed the fort and slaughtered their three treacherous hosts, as well as seven other men who happened to be present. Nor did revenge stop there. Word was sent to other tribes that all white traders had better be massacred; and not far away, three companies of Frenchmen, sleeping within the inadequate protection of three wooden houses, were aroused one night by the dread war cry of the Assiniboines, and, for the most part, were promptly slain.

Meanwhile the English fur traders were traversing the rivers that flowed into Hudson Bay, and erecting their fortified posts away inland. Just how far "Rupert's Land" extended in any given direction they were not in a position to say—they merely knew that, be it little or much, it all belonged to them; Charles II., having, indeed, given away most of the North American continent with true kingly generosity.

And thus it came about that the French fur traders, besides having to put up with a rivalry among themselves, and with spasmodic Indian savagery, found themselves confronted by English competitors, who looked upon them as trespassers and thieves. In the circumstances, the Montreal merchants (who, to add to the complication, were Scotsmen) judged it advisable to combine, so that the *voyageurs* from Eastern Canada should present a united front to their foes. Such was the origin, in 1783, of the North-West Company,

destined to grow exceedingly rich and reckless and to maintain a long, fierce and bloody feud with the Hudson's Bay Company.

Let us glance at a few representative incidents recorded by Agnes Laut: "The North-West partner, Haldane, came to Bad Lake in 1806 with five *voyageurs* and knocked up quarters for themselves near the Hudson's Bay cabins. By May, William Corrigal, the Hudson's Bay man, had four hundred and eighty packs of furs. One night, when all the English were asleep, the Nor'-West bullies marched across, broke into the cabins, placed pistols at the heads of Corrigal and his men, and plundered the place of furs." There was further trouble at the same place a little later. "An Indian had come to the post in September. Corrigal outfitted him with merchandise for the winter's hunt, and three English servants accompanied the *saulteur* down to the shore. Out rushed the Nor'-Wester MacDonell flourishing his sword, accompanied by a bully, Adhemer, raging aloud that the Indian had owed furs to the Nor'-Westers and should not be allowed to hunt for the Hudson's Bay. The two Corrigal brothers and one Tait ran from the post to the rescue. With one sweep of the sword, Eneas MacDonell cut Tait's wrist off, and with another hack on the neck felled him to the ground. The French bully had aimed a loaded pistol at the Corrigals, daring them to take one step forward. John Corrigal dodged into the lake. MacDonell then rushed at the Englishmen like a madman, cutting off the arm of one, sending a hat flying from another whose head he missed, hacking the shoulder of a third. Unarmed, the Hudson's Bay men fled for the fort gates. The Nor'-Westers pursued. Coming from the house door, John Mowat, a

Hudson's Bay man, drew his pistol and shot Eneas MacDonell dead. Couriers went flying to the North-West camp for reinforcements. Haldane and McLellan, two partners, came with a rowdy crew and threatened if Mowat were not surrendered they would have the Indians butcher every soul in the fort, if it cost a keg of rum for every scalp. Mowat promptly surrendered," and, after being confined for a year at Fort William, was sentenced by Montreal judges to be imprisoned for six months and to be branded.

The business rivals overran the whole country right to the Pacific, and the names of rivers and passes in Western Canada bear witness to the enterprise and hardihood of those pioneer explorers. Indeed, the Hudson's Bay men and the Nor'-Westers discovered between them the bulk of the Dominion. That is their title to the respect and gratitude of posterity. For the rest, what a tragic farce the whole business was! Here was a country so enormous that the fastest trains to-day occupy nearly a week in crossing it by a direct route from east to west; a country stretching so far northward that its present population of eight million merely suffices thinly to sprinkle a southern strip; a country with agricultural and mineral resources adequate for the support of over one hundred million people—and those two commercial corporations turned their opportunities to no better account than in murdering one another's representatives over the miserable business of trading beads and brandy for the hides of small quadrupeds.

Please do not suppose that I write in any spirit of criticism and censure. The world evolves in its own strange way; and the human race is permanently incapacitated by altered circumstances from sitting in

judgment on its ancestors. Still, the spectacle of those two companies feeling cramped by each other's presence in a roomy place like Canada, and using pistols and daggers to lessen the pressure of commercial competition, is exceedingly droll, if grim.

The state of affairs to which I have referred continued until 1821, when the Hudson's Bay Company absorbed its formidable opponent. That amalgamation was preceded by a very interesting and important event. Lord Selkirk, a wealthy viscount, and one of the noblest characters in Canadian history, established the first community of immigrant settlers in the North-West—a fact to which I shall recall the reader's attention in my chapter about Winnipeg. The area conceded for settlement was known as the Red River district, and included much of the present Province of Manitoba and part of what is now the State of Minnesota. To secure the co-operation of the Hudson's Bay Company in his philanthropic design, Lord Selkirk had taken the precaution first to buy up a controlling interest in that commercial concern. Warfare between Nor'-Westers and Hudson's Bay men involved those early settlers in some bloody horrors. But in the present chapter we need only consider the affairs of the pioneer community in relation to the future opening up of the entire North-West to colonisation. And first I would mention a peaceful understanding at which the Selkirk settlers arrived with the Indians of the district. Land was surrendered in consideration of the annual payment to each tribe of "one hundred pounds of good merchantable tobacco"; that compact of 1817 being interesting as the forerunner of an important series of treaties with the red man.

United as one company, the fur traders flourished

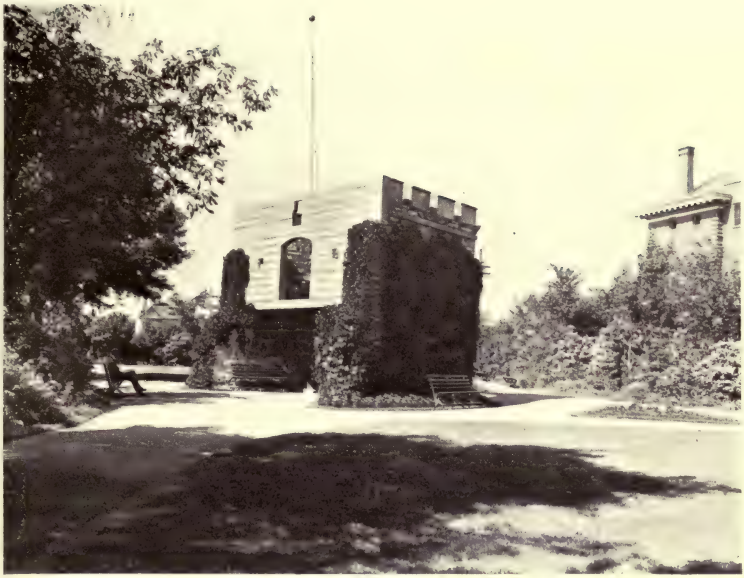
exceedingly, and came in time to exercise authority, not merely throughout the present Dominion, but over territory since absorbed into the American Republic, besides extending their sway to Alaska and across the ocean to the Sandwich Islands—a tolerably large area to be exploited in the interests of the iron box of Fenchurch Street. The coming of human settlers to disturb the furry quadrupeds was, of course, a calamity to be prevented, or at any rate delayed, by all the power and statecraft at the company's command. But the tide of democracy could not for ever be resisted, and the pelt-collectors' title to a huge empire melted before the hard facts of American, British and Russian occupation.

The company was not so foolish as to take up arms in defence of its flimsy rights. Its policy was to hinder human encroachment as long as possible, and then bow to the inevitable. By 1835 its spheres of influence had sadly dwindled, and its titles to territorial possession were becoming more and more shadowy. The governor and his committee perceived the necessity for doing something to arrest the decay of their power and prestige. So it was the strange fate of the Red River colony to be bought back by the Hudson's Bay Company, for a sum of £84,000, from the heirs of Lord Selkirk. In that colony the fur traders now established an autocratic government that aimed primarily at the vigorous suppression of all private trade in pelts. It was not long before the settlers were gasping for freedom. Vainly they demanded the representative government that had been secured under the American flag by their comrades in Minnesota. At the opening of the second half of the nineteenth century, indeed, the fate of the Red River settlement—the pioneer colony

of the West—hung in the balance. Would it, like Oregon, join the Union? In that critical situation, an independent element of unrest was provided by the growing discontent of the Half-Breeds. For long years past, the fur traders—and more particularly the French Nor'-Westers—had intermarried with the Indians, and brought into existence that numerous, pathetic people, who inherited the conflicting traditions of two races.

In view of growing unrest in the Red River settlement, the Home Government instituted a Parliamentary inquiry into the affairs of the Hudson's Bay Company. That inquiry seemed to effect nothing. But, hey presto! a change came over the position immediately afterwards. In 1863 a syndicate of capitalists, known as the International Financial Association, bought up the Hudson's Bay Company for £1,500,000, and turned over the concern to new shareholders in a new Hudson's Bay Company on a footing of increased capital. The tension was relieved; for public interests were represented by a wisely-controlled force working in the background. With the confederation in 1867 of Canada East, Canada West, Nova Scotia and New Brunswick, the creation of the Dominion of Canada commenced. The newly established Federal Government promptly arrived at an understanding whereby the Hudson's Bay Company relinquished any rights of territorial administration it may anywhere have possessed; and in 1870 the Red River colony became the Province of Manitoba and an invaluable part of the Dominion of Canada.

But before suffering the Company to pass out of this narrative, I must satisfy the reader's curiosity concerning the terms it secured. It received a money payment of £300,000; it was granted one-twentieth of the arable land in the country over which, at the date of



OLD FORT GARRY, WINNIPEG

NEW UNION STATION, WINNIPEG

the arrangement, it held dominion; and its title to all land on which its forts stood was confirmed. Probably the shareholders have never regretted the bargain made on their behalf. "How valuable one-twentieth of the arable land was to prove," says Agnes Laut, "the company itself did not realise till recent days, and what wealth it gained from the cession of land where its forts stood may be guessed from the fact that at Fort Garry (Winnipeg) this land comprises five hundred acres of what are now city lots at metropolitan values." Moreover, I understand that the business of collecting furs is still a lucrative one; while visitors to Canada will not fail to notice, in all the great cities, the magnificent general stores of the Hudson's Bay Company.

One regrettable fact has to be noted in connection with the creation of the Province of Manitoba. The anxious and bewildered Half-Breeds, fearing their interests were in peril, rose in rebellion under Louis Riel, the trouble not being repressed until Colonel (afterwards Viscount) Wolseley crossed the continent with an armed force. The growth of Manitoba under representative government has been one of the most inspiring achievements of modern times; but the history of that province merges at this point into the history of Western Canada, to which it had become the open door.

Western Canada provided the Federal Government with several problems, of which the most pressing concerned the status of the roving bands of Indians. In the States, civilisation was driving back the natives with fire and sword. In Canada, recourse was had to milder and more effective methods. But in one respect the Yankees and the Canadians acted in concert. They joined in a war of extermination against the buffalo.

Of the number of those animals roaming the prairie, it is difficult for anybody nowadays to form a conception. One traveller recorded that he rode for twenty-five miles through an unbroken herd, which he estimated to include one million animals. In the States, "Buffalo Bill" (Colonel Cody) took an active part in the work of extermination. He is credited with shooting forty-eight of the poor creatures in fifty minutes. In a period of some eighteen months—when he was under contract to supply all the meat needed by the huge army of men engaged in constructing the Kansas Pacific Railway—he accounted for 4,280 buffaloes. On both sides of the international boundary line, the country was swept clean of these fine beasts. I have seen places on the prairie white with an accumulation of their bones, whereof the weathered relics may still be found.

When the Indians saw what was being done, they were filled with apprehension. The buffalo was their means of subsistence. Its flesh supplied them with meat, both fresh and, when pounded down and mixed with fat, as pemmican; its skin provided them with clothing, tents, canoes, bridle and reins; its sinews made strings for their bows; and its horns served them as powder flasks. But the Federal Government had no intention of permitting the Indians to starve. Their helplessness without the buffalo was the means of bringing them, willy-nilly, within the pale of civilisation. I have mentioned the pioneer compact with the red man achieved by the Selkirk settlers. That had been followed by similar understandings in Eastern Canada. And now the Federal Government effected a series of treaties with the North-West Indians, who surrendered any general claim they may have had to the country at large, and accepted a specific title to ample lands, or

reserves, set apart for their exclusive use. Moreover, the Government agreed to make them annual money payments, and to grant them free rations until such time as they should be self-supporting—an end Canada is striving (and not without a very encouraging measure of success) to further by providing the tribes with schools, both general and agricultural, and with cattle, seed, and farming implements.

The interests of the natives were served in another way. American traders, in defiance of the law, were supplying them with intoxicants; and the fascinating, maddening "fire water" was a temptation wellnigh irresistible to the red man. To sweep that traffic from the prairie, the Government enrolled the North-West Mounted Police—a force that has won for itself a splendid reputation for tact, pluck and all-round efficiency. The suppression of the illicit liquor trade was one of the earliest and best of its achievements. The Riders of the Plains won the respect and confidence of the Indians, and carried through a treaty with the warlike Blackfeet—the last tribes to be won from a footing of irresponsible independence. When the Half-Breeds, again under Louis Riel, once more raised the flag of revolt, the mounted police rendered effective assistance in repressing the trouble; and this time it was repressed permanently.

The year of that rebellion witnessed the completion of the Canadian Pacific Railway, and the creation of modern Western Canada.

CHAPTER III

QUEBEC PROVINCE

ONE of the most interesting facts concerning Canada is that very little is known about it. Its eight million people are scattered along the southern strip—a mere fraction of the country. The great bulk of Canada is neither settled nor surveyed. Nay, it has not been explored, save in the sense that a person proceeding along the road from London to Scotland may be said to have explored England.

Settlement in Western Canada is necessarily of recent date. But in Eastern Canada civilisation has already had a good innings. The colonising of Quebec province began three hundred years ago. Therefore a hasty thinker would be apt to suppose that, however much uncertainty may envelop other parts of the Dominion, Quebec province must by this time be well-trodden territory. What smiles that supposition would cause among the urbane politicians and officials I met in the provincial Parliament House!

If the population of Canada, instead of being eight millions, were one hundred and ten millions—that is, an equivalent to the German and French nations rolled into one—and if the whole of that population were concentrated in Quebec province, the inference of the hasty thinker would probably be correct. For the area of Quebec province is nearly equal to France and Germany combined.

QUEBEC FROM THE ST. LAWRENCE: WINTER SCENE

How can a couple of million busy people inspect and investigate, let alone settle and develop, such an area? Necessarily they and their homes, their farms, their factories, and their railways occupy but a fraction of their vast territory. All the rest of the country is available to whomsoever cares to go and unlock its riches.

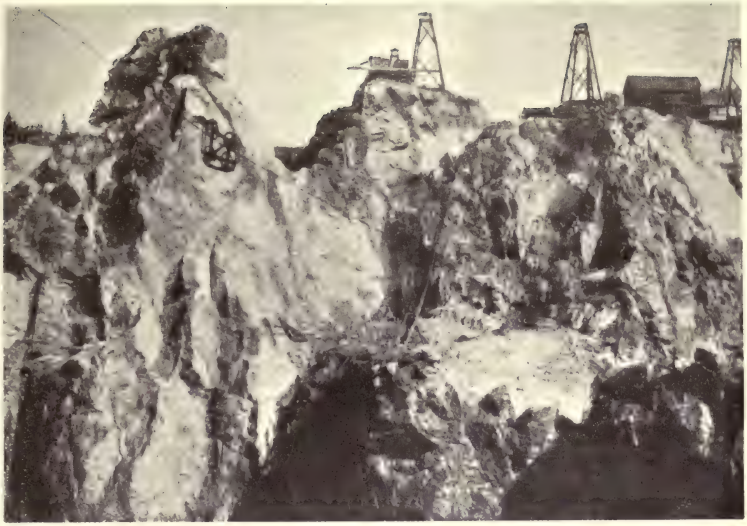
Time was when the French-Canadians gave little attention to the problems and possibilities presented by the unknown geography with which they were associated. Prosperous, healthy, and happy, they were satisfied to let the land north of 48° latitude and west of 70° longitude look after itself. But nowadays settled Quebec is much interested in unsettled Quebec. I will tell you why.

Canada, having a pre-vision of her destiny, is vigorously engaged in promoting it. She has set herself the task of attracting population by proclaiming her resources. The paramount need has become the ruling interest. In travelling through the country, you will find that matter uppermost in the mind of every adult with whom you converse. And it is recognised as a leading concern of the State. The Federal Government and the Provincial Governments are expending much thought, ingenuity, and money in furthering this national policy of promoting immigration. The collecting of facts, with a view to their publication, is recognised as one important means to that end. Therefore the Governments are constantly sending prospecting scientists into the unknown lands to scratch the face of Nature and gain some clues.

To give an idea of Quebec province, I will briefly outline a journey made in 1905 by Mr. A. P. Low (now Deputy Minister of Mines) into the Chibougamau

district. It is by no means remote, being not much more than a hundred miles from a railway. How Mr. Low came to be sent there was because certain prominent citizens of Quebec, having received interesting tidings from the Chibougamau district, suggested to Sir Wilfrid Laurier that a member of the Geological Survey ought to go and have a look at it. The interesting tidings are worth recalling, since they illustrate the sort of treatment pioneers receive at the hands of Fate. It appears that Mr. Peter McKenzie made a "prospecting and trading journey" through the region in 1903, and while this enterprising gentleman was looking for iron ores "he chanced upon an important discovery of asbestos" (I quote from a Government record, save that I decline to spell the infusible fibrous mineral with a "u"). Thus encouraged, Mr. McKenzie re-visited the district in the following year, and this time he searched for copper deposits, and found "a large mass of gold-bearing quartz." Had he gone yet a third time, and tried to locate a tin mine, he would, I presume, have stumbled upon a reef of diamonds; but that is mere conjecture.

Now for Mr. Low's experiences. Leaving Ottawa on June 21st, he went by rail to Lake St. John, and there secured the services of eight Indians, four (who knew the Chibougamau district as well as I know Charing Cross) being engaged to act as canoemen, the other four being required merely to assist with the baggage on the outward journey. And here let me point out what a useful rôle, in connection with the development of Canada, is served by the red man, now that he has been tamed and completely cured of his old abominable practice of removing people's scalps. To the prospector and the surveyor the Indians are



ASBESTOS QUARRY AT THETFORD, QUEBEC PROVINCE

FARMLAND SCENERY, ASCOT, QUEBEC PROVINCE

invaluable pilots and porters, their navigation of swift currents being marked by a skill to which the average white man is a stranger. Sustained toil is not to their liking, since it is inconsistent with that large measure of leisure and meditation which they associate with human existence; but, for the rest, Canada's pioneers and explorers give them a good name. One distinguished surveyor, who has had much experience in the wilds, told me he could recall only a single instance of dishonesty on the part of an Indian who had served him; nor, when he detailed the affair, could I shut my eyes to an element of justification in the delinquent's conduct.

"I arranged with the Indian," said the surveyor, "that, for an agreed sum, he should pilot me along a dangerous stretch of river to a portage where I proposed to camp for the night. He did so, and I paid him his money; but you may imagine my annoyance when, on returning to the river-side after half an hour's stroll in the woods, I found that the ruffian had absconded with a pair of my blankets. Such an unusual occurrence rankled in my memory, and four months later, on the return journey, I made it my business to inquire for that Indian. It turned out that he was still in the district, and when I charged him with the theft he calmly admitted it. But it was right, he contended, that he should take my blankets, and he went on to tell me why. Nine years previously, a white man engaged him as guide, and afterwards slipped off without paying the promised fee. It was a mean thing to do, and a most unwise one, because the Indian has a very tenacious memory for anything in the nature of treachery. For nine years, you see, this Ojibway had nursed his wrong, and from the next white man who

came along he exacted retribution. From my point of view this was rather crude justice, and at first I requested the return of my property. But I did not press the point when I saw how incapable he was of grasping the subtlety that white men are not answerable for one another's sins."

Before railways were invented, and when the whole world depended on roads and rivers, it must have been hard to say where settlement ended and the wilderness began. But to-day civilisation marks its domain by steel lines, and a territory that lacks railways is unable to compete, whether in agriculture, mining, or manufactures, with territories that possess railways. Mr. Low's experiences — which are the experiences of Canada's hundred and one other explorers—reintroduce us to the world as it existed before Watt and Stephenson interfered. No road having been made to the Chibougamau district, he had to fall back on the rivers. And with rivers, be it noted, Nature has liberally endowed Quebec province.

Having laid in a good stock of provisions, Mr. Low secured some stout cedar canoes, and set off on his journey from Lake St. John—he and the Indians. They did not advance with the speed which readers of Fenimore Cooper's novels would expect. Their rate of progress averaged fifteen miles a day, the responsibility for this dilatoriness lying wholly with the Ashwapmuchuan River. Only every now and then is it a level, composed, and Thames-like avenue of water. In between whiles, after the wont of Canadian rivers, it plays leap-frog down the gradients. On approaching foaming rapids and roaring cascades, Mr. Low and the Indians got out and walked. Carrying canoes, stores, and baggage over portages that are sometimes a mile

in length is, of course, a laborious and slow business. On the other hand, it is better to go through with that ordeal than to be whirled over a waterfall that has a sheer drop of sixty feet—to mention one picturesque feature occurring along Mr. Low's route.

I will not dilate upon the glorious mountains and the verdant valleys that came under the explorer's notice. The lovely lakes—some of them twenty miles and more in length—rather tried his patience. "Many of them are so indented and dotted with islands," he deplored, "that it is difficult for even the Indian guides to follow correctly the channels."

He noted the millions of dormant dollars existing in the form of timber: the black spruce (most abundant of all), the fir, the banksian pine, the aspen and balsam poplars, the white birch, the cedar, and other useful sorts. "White spruce up to twenty-four inches in diameter are," he reported, "in many places numerous enough to permit of profitable lumbering if any means existed for transport to the southern markets." But discerning science did not confine itself to indicating the fortunes in forests that awaited human immigrants. It shed a passing tear over the timber wealth that had been already consumed by immigrants of another genus. "Larch formerly grew in abundance," Mr. Low reported, "and often they exceeded the white spruce in size," as was obvious from old trees still standing as skeletons. But about twelve years ago, it seems, those forests were destroyed by a visitation of the European larch saw-fly—that wasp without a waist whose caterpillars have a large appetite, twenty legs, and an interesting way of standing with the hind part of their bodies gracefully curled over their heads. So our European saw-fly was the guilty party, was he? One

wonders how in the name of Christopher Columbus he got across.

Mr. Low found some white fellow-creatures in the virgin territory he was exploring. To begin with, he saw (as the opening of this narrative will have prepared my readers to learn) a small party of miners working at the asbestos outcrops on Asbestos Island in McKenzie Bay, which is situated in the north-west corner of Chibougamau Lake. He also found in the district other white, or whitish, people, who were residents of long standing. Indeed, the strange fact has to be noted that groups of these white or whitish people are to be found in even the most northerly and remote districts of unexplored and unexploited Canada. The history of the Hudson's Bay Company—one of the greatest dramas that the world and the centuries have witnessed—was sufficiently outlined in the preceding chapter. In this place it is merely necessary to relate that, on approaching Lake Mistassini, Mr. Low found "a number of old men, women and children" congregated on the shore, awaiting the arrival of some flour and groceries they were expecting by canoe from Hudson Bay. Much earlier in his travels, at a point only some sixty miles from Lake St. John, he had come upon another settlement of the ancient fur-collecting corporation.

In a manner wholly unforeseen, the Hudson's Bay Company is proving of great value to modern Canada. Each of its outposts of civilisation is a treasury of clues to the agricultural possibilities of an unknown country. The trappers, in their remote isolation, have naturally gone in for a little gardening. It has helped to pass the time, not to mention the advantage of having fresh vegetables and ripe gooseberries on the dinner-table.

When the rare visitor now arrives, as an emissary from populated regions away in the south, the Hudson Bay folk must be intensely gratified by the interest he takes in their cultivated back-yards.

Mr. Low is not the man to neglect opportunities. "The surrounding country appears to be fertile," he noted, "as, in the clearing about the old Hudson's Bay Company post, timothy grass grows abundantly and small fruits ripen early." On the other hand, no great success had apparently attended horticultural efforts at the second trappers' settlement he visited. "Great difficulty is experienced," we are told, "in growing a small crop of potatoes, although the soil is the best in the region." Again, "attempts have been made at this place to grow oats, barley, and wheat, but without success." The explanation of this unsatisfactory state of things is detected by the scientific mind, and a valuable hint to the agricultural world is the result. This particular Hudson's Bay post happens to be twelve hundred feet above sea-level—indeed, it occurs very near the line of greatest elevation running through Quebec province. "When lands are situated above the thousand-foot level," Mr. Low points out, "there is constant danger of summer frosts, though these would probably be lessened by clearing the lands and breaking the surface with the plough." He emphasises his contention by instancing experiences at the Hudson's Bay post beside Waswanipi Lake, which is situated about one hundred and fifty miles away to the south-west. The climatic conditions are more favourable there because the elevation is only seven hundred feet above sea-level. At the Waswanipi station, we learn, "excellent root crops are grown annually, while experiments with the cultivation of cereals show that oats, barley,

and the hardier varieties of wheat easily ripen." The Canadian settler, when choosing a northern homestead, will be well advised to keep this matter of elevation in mind.

Mr. Low, it will be observed, by no means limits his investigations, when travelling through a new country, to matters germane to his own science. "The fisheries of the larger lakes," reported this broad-minded geologist, "will undoubtedly be a source of considerable wealth to the province as soon as a railway provides quick transport." Speaking from personal experience, he goes on to say that "the chief food fishes are lake-trout, brook-trout, pike, pickerel, sturgeon, whitefish, and two species of sucker." The sucker is, I believe, also known on the North American continent as the "stone-roller" and the "red-horse." No doubt it is more appetising than it sounds.

Coming now to matters belonging to Mr. Low's special province, I must first mention his discovery of an interesting freak of Nature. "Near the western end of McKenzie Bay," it seems, "is a low cone of dark, rotten serpentine, peculiar on account of its magnetic attraction, the compass pointing to it from all directions within a radius of half a mile."

A geological report is, of course, a solemn, technical, and unsensational document. The business of a geologist is to identify the rocks, seen and unseen, the word "rocks," in its scientific application, including pretty well every constituent of the globe save water and air. The geologist does not mine for gold, silver, and precious stones; he merely decides whether and where it would be worth while to mine for them. His task is to go in advance and prepare the way for the prospector.

Thus Mr. Low's report does little more than hint at mineral wealth. Having confirmed the discovery of a large mass of gold-bearing quartz, he states the conditions under which similar bodies may perhaps be found in neighbouring localities. As to copper, we have to be content with the information that "in a number of places good signs of ore are seen in diabase schists." Concerning iron, a "locality of promise" is indicated. With regard to asbestos, which lends itself to readier identification, we have more definite information. "All the areas of serpentine discovered in the region up to the present time," Mr. Low's report bears witness, "contain veins of asbestos, and in many places these veins are of sufficient size and number to form valuable deposits as soon as a railway is built to the shores of Chibougamau Lake."

Mr. Low made the return journey in fine style, "shooting all the rapids along the river," and arriving at Lake St. John on September 1st. Thus his explorations occupied more than nine weeks, and—rendering testimony on yet another important point—he mentions a sustained experience of fine weather, "not a day having been lost by rain or head-winds."

Thus by following in the footsteps of a scientific scout of civilisation, we have had a peep at one morsel of a huge territory which man has scarcely begun to utilise. There are no means of measuring its natural resources; we know only that they are vast. Conjecture may, however, be based on analogy. The present population of Quebec is practically restricted to a tenth part of the province. What is being done in that tenth part does not by any means represent finality, since development in many districts is still at an early stage. Nevertheless, the achievements of a part supply a clue to the

possibilities of the whole, so I will mention a few instructive facts.

Last year some fifty million bushels of oats were grown in the province of Quebec; and since to most persons 50,000,000 is an indefinite total, and only vaguely impressive, like 5,000,000 or 500,000,000, I may mention, for the purpose of affording the reader a standard of comparison, that in 1909 the quantity of that grain grown in Scotland—the national head-quarters of oat-cakes and porridge—was only thirty-eight million bushels. Let me quote another item from the long list of products yielded by the fraction of Quebec province that is at present under cultivation. The French-Canadians and their neighbours annually grow about seventeen million bushels of potatoes, or enough to supply the entire population of Ireland from one year's end to another, allowing for a consumption of 2½ lbs. per week for every man, woman and child. They also grow enough tobacco (principally black and strong kinds, but including a good deal of Havana) to meet the annual requirements of over a million moderate smokers; while Quebec's immense quantities of apples, cheese, cherries, butter, pears, pumpkins and melons also provide the statistician with much food for thought.

And, while I am about it, let me give a hint or two with reference to the present mineral output of the province. Note, then, that in 1909 some three thousand miners received £270,000 as wages for wresting £459,000 worth of asbestos from the serpentine rocks of Quebec—a region which in the same year enriched the world with over a million barrels of Portland cement (representing a value of £263,000), besides noteworthy quantities of copper, graphite, marble, granite, phosphate, mica, chromite, and ochres.

GATHERING MAPLE SYRUP IN EASTERN CANADA

TOBACCO GROWING, QUEBEC PROVINCE

As to the forests, they represent a vast treasury from which the lumber and pulp industries draw annually a value of about £4,000,000; nor should we forget the six thousand tons of luscious syrup tapped from the maple trees. Again, there is not an area of the earth more richly endowed with water-power; and therefore to Quebec's manufacturing activity, which has had a brilliant beginning, no man can foresee the end.

Those of my readers who are well-read sportsmen will have been wondering why, all this time, I have omitted to mention a supreme attraction of the region under notice. With its vast virgin forests full of game, its thousands of lakes and rivers alive with fish, Quebec has won the title, in Canada and the United States, of the Angler's and Sportsman's Paradise. Many a wealthy American whiles away delightful months hunting the caribou, moose and red deer, the beaver, mink and yellow fox, the woodcock, partridge and widgeon, in that beautiful country of the St. Lawrence River and the Laurentian Range. American angling clubs lease Quebec's famous salmon pools, and hundreds of New York's busy citizens spend their holidays capturing the monster trout, bass, pike, and whitefish for which the province is famous.

And anybody may acquire the freehold of one hundred acres of that favoured country on paying 16s. 6d., with four following annual payments of the same amount, the price of Crown land being 10d. per acre, rising to 2s. 6d. in certain areas. For the rest, steamers ply on some of the lakes, the Government is rapidly extending its network of colonisation roads, and in one district free railway transport is conceded to arriving settlers and their families, with 300 lbs. of household effects.

Nor do these facilities exhaust the measures taken by the provincial authorities to secure population. They recognise a necessity to make further special effort in view of a notable disadvantage in the matter of immigration that is peculiar to Quebec. The majority of new arrivals from the United Kingdom—little dreaming what charming and helpful neighbours the French-Canadians make—elect to locate themselves in the provinces where their mother-tongue prevails, and, the number of immigrants from France being insufficient to adjust the balance, Quebec has its grievance. Perhaps I ought rather to say that Quebec had its grievance, for the genius of French-Canadian politicians has proved a match for the situation.

A law was passed granting boons and honour to the mothers and fathers who rear twelve children or more. I first heard of this stroke of enlightened statesmanship when discussing Canada's future with M. E. E. Taché, the Deputy Minister of Lands and Forests in Quebec's noble Parliament House.

"We do not get our due proportion of the inrush of settlers," explained M. Taché. "Very well, then, for peopling our vast province we look rather to the natural increase of the population already here;" and he presented me with a copy of Volume II. of an interesting Government publication.

This publication shows the law of the twelve children in working. It seems that during the first fourteen years of the existence of the statute 3,395 heads of families were registered as qualified to receive the free grant of 100 acres (or, in the alternative, fifty dollars) by which a progressive Government recognised the service they had rendered to Canada by rearing large families. Those 3,395 names had been printed in

TYPICAL FRENCH-CANADIAN FAMILY: SIXTEEN CHILDREN

Volume I., and the significant fact has to be added that, in the comparatively short ensuing period of fifteen months, as many as 2,018 heads of families were added to the roll of honour.

Those prize-winners are recorded in page after page of a table printed in six columns. The first column gives the name of the head of the family—usually, of course, the father, but occasionally his widow or his eldest son. Then occurs the name of the wife, or, in the case of a second marriage, of the wives. The third and fourth subdivisions indicate the parish and county of residence. From the fifth column we learn how many children there are in the family, and the sixth column reveals whether the hundred acres or the fifty dollars were preferred. Since the grant of land is associated with an obligation to clear and cultivate it, and since the people of Quebec are already provided with ample farms, it is natural that choice alighted, in a majority of cases, on the money payment. Here and there, indeed, the table reveals a large family so wealthy and contented that they have waived their claim alike to the land and the cash. The proud father accepts as a sufficient reward the honourable publicity conferred by having his name conspicuously printed in State archives.

The column devoted to "*Nombre d'enfants*" repays examination. The repetition of the number 12 is constantly interrupted by 13, and, less frequently, by 14; but you do not have to turn many pages before you come upon a 15, then other 15's, with a sprinkling of 16's, and with even a 17 here and there. When, on page sixty, I found evidence that a French-Canadian of Montmorency had 18 children I did not doubt that here, at last, I had reached high-water mark. Yet no;

on turning to page 127 I learnt that M. Cajetan Vezina, of Hebertville, in the county of Lac St. Jean, had 19 children. Among the 2,018 entries that proved to be the top score. *Vive Québec! Vive la famille!*

CHAPTER IV

NIAGARA AND WHITE COAL

At night I stood upon a steel suspension bridge that hung high above the mighty river it spanned. Electric lamps shed light even down to the water, visible as streaks of foam moving in the eddies. A deep bass drummed unceasing in the ear, and I knew this muffled thunder came out of the great ghostly cloud lying in the darkness away up stream. The deep bass was a background of sound for the treble of crickets piping on the precipitous banks, black with dense vegetation.

Crossing the bridge, you enter the light and bustle of an American city, with its stores and saloons and hotels, its girls without hats and its men without waistcoats.

That night, in cosy quarters on the Canadian side, I was lulled to sleep by the subdued, dull roar, which next morning greeted my awakening. From the hotel window I had my first glimpse of Niagara Falls—of a section, rather, for an outhouse obstructed the view. I saw a wall of water glistening in the sunlight—green transparency the upper part, opaque whiteness the lower, with a cloud of rolling vapour at the base. From a balcony I saw all—the straight American falls on the left, the recessed Canadian falls on the right, and the intervening island. At that distance Niagara Falls are peaceful and beautiful. Leisurely the water curves

from the top in flashing emerald; slowly and softly it descends in thick, broken, snowy coils; indolently it evaporates at the bottom into pale fog.

The American portion seems small beside the far sweep of the Canadian. Look curiously and you will see one thin thread of water detached from the main body of the American falls. During the afternoon I was one of a party of friends on the island, close to the top of that thread.

Entering a house divided into dressing-rooms, we, under instruction, exchanged the whole of our own attire for strange, picturesque costumes—enormous boots of felt tied to the feet with string, blue woollen knickerbockers, a blue woollen jacket, and an oilskin hat that covered the ears. Others of the party accepted outer suits of oilskins, so that they looked like fishermen in northern latitudes equipped for a hurricane. It was a hot afternoon, and I declined to be burdened with those waterproof additions. "Oh, very well," said the attendant with composure; and he went on munching his chewing-gum.

Out in the roadway we stood in a group to be photographed. Two carriages came to a standstill in our proximity, and the ladies within them laughed, and laughed yet again, as they gazed upon us. Beginning to descend a flight of wooden steps, we met an old man coming up, an old man who, arrayed like my companions in oilskins, looked to have had a recent narrow escape from drowning. Wet and glistening, he walked with bent back and heavy footsteps, a saturated moustache assisting his melancholy aspect. He was, it seemed, to be our guide, and soon we were following him down the staircase, which was spiral, and contained within a wooden tower.

At the bottom, thunder stunned our ears, and only by signals and grimaces could we communicate one with another. The thunder never ceased as we followed a downward path cut in the rugged cliff. Presently, at a bend in the path, we saw a frightening sight. I felt like a helpless insect watching the disruption of the universe. The bottom of that thread of Niagara Falls was immediately before us, edge on. Oh, the weight and speed of the endless world of waters smashing down upon the huge boulders! I strove to look upwards to the full height of that grey cataclysm; but the spray was blinding.

Following our guide to the right, we soon were upon a rustic bridge spanning rocks washed by a running riot of waves. The fine rain became a deluge of great spots of heavy water, which hurt my shoulders like pellets of lead. Bitterly did I regret my refusal of the oilskins.

Now we were in front of the waterfall, gasping, with bowed heads, clutching by both hands at wooden rails draped with slimy weed, and shuffling shamelessly along the deluged planks. So we made our way over several bridges—shuddering, blinded, deafened; and as we crept up wooden stairs—a pitiful procession of bent, helpless, suffering men—I found myself doubting the wisdom of making this excursion when so high a wind was blowing.

Somehow we gained a footing on another bridge, and when I forced open my eyes it was to find ourselves between a cliff of rock and a cliff of water. Still were we bombarded by violent rain; still did thunder numb our brains; still was my poor body pierced with cold. But chiefly were our senses afflicted by the wind. In that awful cloister the atmosphere seemed thin and

insufficient, and to be moving so quickly as to leave us no time to breathe it.

My right arm was clutched by the man ahead. Instinctively I gripped the man behind. And so we dragged one another through several moments of amazement, blindness, and repressed fear—suddenly to emerge, with a chorus of laughter, into dry, still, sunny air. For there was no rain that day, and no wind—brilliant sunshine pouring from the blue American sky. The only thunder was caused by water falling 167 feet on rugged rock in unending millions of tons. We had passed round the base of the thin, detached thread of the American falls. We had visited the Cave of the Winds. I should not like to take that heroic shower-bath every morning.

As we reascended the pathway to the tower—dripping, aglow, delighted—we turned our heads, and beheld an unbroken rainbow shining in the clouds of vapour that rolled across the river.

All of that is but one experience of Niagara. Afterwards we went on board the *Maid of the Mist,* where special clothing was once more proferred us; and this time I dressed in accordance with suggestion. On the little steamer's deck we soon were seated, cowled and habited like a company of friars, with only our faces showing. The stout little craft crept cautiously towards the cataract. Soon we were cruising through the clouds and into the white confusion of eddies, our craft riding perceptibly deeper in water of a buoyancy reduced by myriad intermingled bubbles of air. From the *Maid of the Mist* we saw the might and majesty of the Niagara Falls from a fresh, if somewhat hazy, point of view.

Niagara is certainly a most unsuitable place for a river. First, there is that appalling, unavoidable tumble

NIAGARA: ABOVE THE CANADIAN FALLS

NIAGARA: THE CANADIAN FALLS

down a precipice; then, when equilibrium and composure have been recovered, and dignified progress is resumed between verdant cliffs clothed with flowers and innocence, more geographical treachery is met with. Out of the left bank a bay has been scooped, and water entering there is doomed to rush round and round, entrapped and helpless, carrying branches, leaves, and other floating objects in a monotony of aimless circles. This is the whirlpool, and residents of the neighbourhood tell you grim stories of men in canoes, women in barrels, and derelict human corpses travelling for weary hours in those dizzy waters, until some chance eddy at last brought them within reach of rescuing arms.

Still lower down, the river knows the grievous disadvantage of a channel inadequate to its bulk. Forsaking their parallel relation, the banks deflect in gradually converging lines. At once the water takes alarm. Its face puckers into wrinkles of distress, then is bedabbled with foam; and anon the panic-river, blanched with terror, flings itself forward in delirious haste, white wave climbing over white wave until, at the point of greatest restriction, one sees high piles of struggling water.

Between the whirlpool and the rapids I noted strong men on the rocky banks fishing with thick rods in the fierce current. Out on the Queenston heights locusts droned in the trees on the battlefield, and wild grapes were growing on slopes that commanded a far view of fair scenery.

I have concluded my cursory sketch of Canada's greatest coal mine—white-coal mine. For a remarkable change has come over the character of Niagara Falls. In my school-days it was merely one of the wonders

of the world, and of no more practical account than the Sphinx. Now it is a thing of infinite utility, and has as definite a commercial value as the bullion in the Bank of England.

In the history of mankind no fact is more quaint, I think, than that the greatest achievements of civilisation should be dependent, almost entirely, upon the carboniferous strata in the crust of the earth. Coal, as a means of producing steam, has long been the vital, indispensable factor in human affairs. What would become of the world, people have anxiously asked, when our stock of the grimy mineral should be exhausted? Nay, against that evil day we have long been eagerly awaiting the discovery of an alternative source of heat, the automobile almost suggesting that man has at last put his finger on the substitute. Coal's great rival has been found; but it is not oil. It happens to be (and this is another quaint fact in the history of mankind) the waterfall.

Who would have thought it? Who could have dreamed that water would prove the substitute—the superior substitute—for fire? It was so natural to suppose that coal could only be deposed by something that was, at any rate, inflammable. We failed to remember that steam and the piston-rod are but means to an end; that end being—power. In the waterfall we find power ready-made.

To convert mechanical energy into the electric current and utilise that current for practical purposes of illumination, was a great achievement, now more than thirty years old. To convert mechanical energy into the electric current, dispatch that current to a distant point, and there re-convert it, without serious leakage, into mechanical energy, was a far greater achievement,

now about fifteen years old. Just exactly how it all happens I will not attempt to explain, there being many things concerning electricity that are not known to science, as well as many things that are known to science but not to me.

In visiting the power-houses at Niagara I went behind the scenes, so to speak, and saw everything. Also I saw nothing—energy being invisible. A power-house is a shining palace of repose and polished machinery. Each gallery of dynamos is a cloister of peace, where a poet might compose verses to his lady's eyes. Huge turbines hum softly in the trim wheel-pit —so deep, so quiet. The giant generator slumbers in a death-like stillness only to be attained by machinery revolving at the pace of twenty-six miles a second. At Niagara one stands in the clean presence of a volume of power measurable by the united strength of a million men.

White coal gives forth no smoke, dirt, or smell—which reminds me of an instructive personal experience.

I was at Hamilton, a city of between seventy and eighty thousand inhabitants, and situated amid delightful scenery at the western end of Lake Ontario. With its hills and magnificent views, Hamilton suggests a small Edinburgh, and (because of its tree-planted avenues and public gardens) an Edinburgh built on Garden-City lines. The train had lately taken me through the orchards and vineyards of the Niagara Peninsula, and here, in the market-place of Hamilton, I found glowing produce from that region—tons of peaches (selling for a few cents the large basketful), and great consignments of apples, pears, plums, and other fruits, massed with pyramids of vegetables and glorious clusters of flowers, so that, in passing along

the bustling avenues, I walked amid the most seductive perfumes.

"This, then, is the Fruit City?" I suggested to the resident of Hamilton who accompanied me.

"That is a new name," he replied, "for the Birmingham of Canada."

At this I could not help laughing as I looked around at Hamilton, a city bathed in unpolluted sunshine and almost innocent of factory chimneys.

"Birmingham," I pointed out, "is a manufacturing centre."

"Exactly," said my companion; and he went on to tell me of Hamilton's four hundred large factories, which annually produce I don't know how many million dollars' worth of cotton goods, farm implements, boots, furniture, and goodness knows what.

Still was I mystified when dinner-bells rang in the part of the city whither we had wandered, and from out great buildings there poured swarms of high-spirited toilers, who mounted their thousands of bicycles and swept hungrily over the hill.

I began to understand. The machinery in those factories was worked by the water plunging down the Niagara escarpment, over forty miles away This was a sunny, white-coal Birmingham. I prefer it to the smoky, black-coal Birmingham.

When I first crossed the Atlantic, some nine years ago, the Americans were deriving light and power from Niagara, but the Canadians had merely begun preparations to that end, preparations which, by the way, provided a touch of romance. For a temporary breakwater had been constructed some distance above the Falls, thus laying bare a strip of the river bed, and on that area of polished rock, which during countless ages had

been swept by a terrific force, little toddling children were engaged in innocent frolics.

Driving last year amid smiling homesteads, I saw the great steel cable which, suspended from a succession of lofty metal towers, transmits the power of the falls to municipalities of Western Ontario, a share even going to Toronto, which is more than eighty miles from the famous cataract.

The palatial power-houses, the illuminated cities, the smokeless factories, the superb systems of electric tramways—all combine to make a strong appeal to the imagination. Yet Niagara, with its yield of 400,000 horse-power, is but a sample of the Dominion's unnumbered sources of force. Note this portentous fact—Canada's supply of white-coal, which is fifty per cent. cheaper than black coal, greatly exceeds that of any other country. In Ontario, prospectors have surveyed readily-available sources to the extent of 3,500,000 horse-power. Some idea of British Columbia's wealth of waterfalls is conveyed to everyone who travels through that glorious region. Quebec measures its available horse-power by tens of millions.

"When all the coal on the earth shall have been consumed by our machines," said M. Fabrèques, an eminent French engineer, "Canada will be mistress of the world." At the time those words were written, water-power and fire-power stood, or were supposed to stand, on an economic equality. The superiority of white-coal has since been demonstrated.

Thus to the future expansion of Canada's manufactures, who so rash as to prophesy a limit?

CHAPTER V

THE LUMBER KING

NEWLY arrived in Ottawa one afternoon last summer, I was standing amid its noble buildings, chatting with a fat policeman; and the fat policeman, having identified me as a visitor from England, said I must certainly call on his friend J. R. Booth. My comment was directed to the necessity for an introduction and an appointment, whereupon a puzzled face revealed the friendly constable as wondering what I was talking about. Thus this incident epitomised the great difference between two peoples, otherwise identical, who are divided by three thousand miles of ocean.

I am British, and, consequently, a snob; the fat policeman was Canadian, and, therefore, unhampered by any sense of social distinctions. It would never occur to a fat policeman in the Old Country that he was everybody's equal. If he happened to know a millionaire, he would talk of that person with awe, instead of with affectionate respect, as was the note sounded in my corpulent companion's references to J. R. Booth. The untravelled English reader may find a difficulty in realising that it is not a natural law, by Providence ordained, which divides humanity into ladies and gentlemen on the one hand, and common people on the other. In this dear old country many excellent folk would be shocked at the idea of dining

at the same table, or praying in the same pew, with a man who does useful manual work; but the people of Canada, while very much alive to the power of the dollar, are blind and deaf to the idea that personal wealth has anything to do with personal worth. The fact is that kid gloves and the silk hat are emblematical of a country that has reached a ripe, not to say rotten, stage of development. In a new and progressive country like Canada muscle commands, not emolument alone, but honour.

From the terrace of the Ottawa Parliament House —that majestic Gothic pile which crowns the architectural beauty of the capital—I looked out upon a far sweep of beautiful Canadian scenery. Down below, in the foreground of that living panorama, the eye noted, on the farther shore of the broad stretch of glistening river, a little town of workshops and factories clustering behind the white smudge that marked a waterfall. I was looking at the head-quarters of the industry out of which the city of Ottawa has grown. I was looking at the largest lumber-mill in the world. I was looking at a part of the property created, owned, and controlled by J. R. Booth, the friend of the fat policeman.

During my tour of the Dominion's great cities—so full of light, racing tramcars, human enthusiasm, and other forms of electricity—Canada became typified in my mind as The Man Without a Waistcoat; for the energetic citizen permits himself that toilet modification during the brilliant summer months. But an abstract personification was destined to be superseded in my thoughts by a definite human example. In J. R. Booth I felt that I had met the spirit and genius of Canada in the flesh.

I went to him under the conditions which had the sanction of national usage—that is to say, I went without introduction or appointment.

An old man, thick-set and of medium height, with white beard and clean-shaven upper lip; an old man in a suit of dark grey homespun, with peaked cap to match; an old man standing by himself, thinking, in the lee of a wooden shed—that was the multi-millionaire as I happened to find him. It is not many persons who have found him thus.

A while ago Sir Robert Perks dropped in from the Old Country to discuss high finance with the Lumber King of Canada. Sir Robert was shown into an office, where he presently was much astonished by the entrance of an elderly individual in overalls, sprinkled with red dust and mortar. The old man on that occasion had been laying bricks. Visitors sometimes find him at the bottom of an excavation showing his men how to lay concrete.

There was someone with me who, when we saw him standing beside the wooden building, said that was J. R. Booth. I should not have known. At a casual glance he might, even in Canada, have been anybody; in England he could easily have been mistaken for nobody. But when I stepped forward and spoke to that upright, impassive old man, when I confronted his calm, strong countenance, with its wise, blue, penetrating eyes, I realised the presence of J. R. Booth. I cannot find the right word to reflect the impression he produces. The strength of simplicity; the oak pillar or marble column unadorned; a man content to lean on mind instead of manner—those are but imperfect suggestions.

I asked if I might go over his works, and he said

"Yes." I asked if I could have a chat with him afterwards, and again he said "Yes." For he is a straightforward Aye-and-Nay talker—there is no polite pretending, no verbal embroidery, with J. R. Booth. He struck me as being the rare human marvel—a genius without vanity.

Genius is not an exaggerated definition. J. R. Booth gave the first clues to his future career at an early age by doing something that his relatives considered silly and something else that they considered insane. I should mention he came of a stock of seven brothers Booth who, over a century ago, emigrated from Ireland to Waterloo—a district within that vast stretch of Quebec territory known as the Eastern Townships. There they toiled, prospered, and multiplied; and it came to pass that J. R. Booth, of the rising generation, had to plough, chop wood, and tend stock. But homestead duties did not monopolise the young man's attention. It was in his mind that the utmost power of a man's body can accomplish but a minute fraction of the work waiting to be done in the world; and, undeterred by the titters of his intimates, he put in a lot of private time constructing amateur watermills on a rivulet that coursed through the paternal property. Those wheels were running in his mind when, at the age of twenty-one, he broke away from the traditions of his youth, and, with no more than nine dollars in his pocket, set forth to conquer the world in his own way, the good people of Waterloo shaking their heads over the departure of one whom they feared must be crazy.

We may jump a few years spent bridge-building in the States, and so come to the time, fifty-eight years ago, when J. R. Booth, a carpenter without capital,

stood on the banks of the River Ottawa, bending an appreciative eye on the Chaudière Falls. There they were, rushing and roaring—a mighty volume of sustained force running to waste. J. R. Booth decided that they were what he was looking for.

Lower rungs of the ladder were quickly mounted—from factory hand to foreman, from foreman to tenant of a mill, from tenant to owner. A bank was willing to back such a man; and at a public auction J. R. Booth bought, for £9,000, a large territory endowed with timber wealth which—as he had taken the precaution to ascertain—was almost incalculable. Local lumbermen regarded the transaction as hopelessly vast and audacious. But with J. R. Booth it was just a beginning.

From having water-wheels on the brain, he now had them on the Ottawa, where they propelled powerful machinery that hauled and sliced his logs. The reader will not, of course, confound this time-honoured water-power, as used at the place of its occurrence, with modern "white coal," which is water-power in a fluid, invisible form that lends itself to distribution. J. R. Booth had not introduced a new method. He merely introduced an old method into a new place. By the one plan you must bring your factory to the waterfall; by the other plan you send the waterfall, along a metal cable, to the factory.

If the Chaudière cataract illustrates the latent resources of Canada, J. R. Booth illustrates the qualities that go to make good Canadians—those men with daring imaginations, industrious brains and educated hands. But he is not the type—he is a supreme example. It is as though Nature had prepared a store of business capacity sufficient for a townful of

merchants, and then, on second thoughts, had bestowed it all on one man.

So fully did J. R. Booth post himself on the practical details of logging and lumbering, so securely did he lay the foundations of every fresh extension of his enterprise, that, of all the forest properties in the world, his became the largest. Mr. Paul E. Bilkey put the case comprehensively when he wrote: "Rivers, streams big and little, snow-covered forest tracks, roads that are good and roads that are bad and roads that are no roads at all, lead ultimately to the coffers of J. R. Booth; veins and arteries stretching over two great provinces and an American State, parts of or tributaries to a great industrial system whose heart pulsates day and night at the Chaudière, to the uttermost agency devised and dominated by the genius of one man—Booth." And again: "The river is bitted and broken to do the work that Booth requires it to do: turns the wheels of his mills, takes the logs and timbers down through his slides, floats his noisy tugs and carries his booms; and Booth, to keep it all going, draws upon a timber empire in the north which, if strung out in a line a mile wide, would stretch from Quebec to Victoria."

Thus to measure the scope of this colossal enterprise your imagination must first roam over large areas of Ontario and Quebec, and then (J. R. Booth having felt cramped in a little place like Canada) take cognisance of great slices of the United States. But it is easier to find the limits of the business than of the brain that controls it. Of that brain, the more obvious feature is its organising power. For J. R. Booth is the sole and actual head of the vast concern. It is not run by a syndicate or a company. He easily

and successfully carries a burden of mental responsibility, and exercises a volume of mental control, that would suffice to keep half a dozen boards of directors out of mischief.

But the most remarkable feature of this brain, I think, is its capacity for detail. It is not only a mental telescope that sees things too large for ordinary vision; it is a mental microscope that detects minutiæ invisible to most men. I will give two illustrations.

A certain amount of carting having to be done, there are some five hundred horses at the Booth lumber yards, and, one of them recently dying suddenly overnight, it was replaced within an hour or so by the responsible foreman. "Where did the new horse come from?" asked the eagle-eyed old man next morning, soon after arriving on the scene at seven o'clock, as is his daily custom. The other incident occurred one afternoon, when many hundreds of the hands were streaming homeward on the conclusion of their day's work. The old man, standing by, called to one of the men by name. Said the venerable employer: "Are you satisfied with your wages?" "Yes," was the reply. "Then why do you steal my property?" came the further inquiry. At first the man made faltering protestations of innocence, but when requested to raise the lid of his dinner-can—which, indeed, proved full of copper nails—he confessed his fault in an extremity of penitence and dismay. The old man—who, by the way, associated a reprimand and a warning with forgiveness—had not been blind to the fact that a dinner-can swings in one way if empty (which is its normal state at four o'clock in the afternoon), and in another way if it be full of metal.

And all this time I have been speaking of J. R.

PUMPKINS GROWN IN QUEBEC PROVINCE (*see page* 42)

Booth merely in his capacity of Lumber King. He is other things as well. For example, he has long been a wood-pulp magnate. You get a tree, and pound it into a fibry mass which, with added water, resembles thick oatmeal porridge; and when you have spread that mess out and let it partly dry, it rolls up like a thick, coarse blanket, in which form you can ship it across the ocean to be the basis of the great reels of paper that feed the daily Press. The old man acquired the necessary knowledge and machinery for doing that class of business, and he does it on a grand scale.

Thus on my conducted tour of inspection there was much to see. First, I beheld a stretch of river where the water was hidden by wood—logs floating end to end and side by side, giving a ribbed surface to the vista, which suggested acres of a Brobdingnagian corduroy. They look flat and tame—those trees without roots or leaves or branches. Here one saw the forest suspended midway between the poles of its destiny—no longer an asylum for birds and beasts, nor yet house and furniture for man.

I knew something of the stages through which that floating timber had passed. For I have penetrated into Canada's lofty jungle and visited the camps where companies of sturdy men fell the trees and saw them into logs, and haul those logs to the nearest river, along which they are borne by the current or drawn by tugs, until at last they join the dense congregation of their fellows massed within sight of the mill.

I now saw the places where, one by one, the logs were pushed within reach of mechanism that lifted them out of the water and bore them up an incline, thence to be delivered into the maw of complex, in-

genious, deafening, ruthless machinery. You had some inkling of the force of the Chaudière Falls when you saw what that force was doing. Metal platforms went racing airily about with huge logs as though they were featherweights. Sometimes a great blundering log would roll off the platform, whereat a devilish iron arm arose out of the floor and pushed all that timber tonnage back into position. Always the heavily burdened platform was running forward; and, looking ahead, you saw an obstruction along the route—an obstruction of whirling, shrieking machinery. Still looking, you saw the logs, without any jarring or delay, melt miraculously through the obstruction as if they were no more substantial than cloud. And on the other side they were logs no longer, but merely clusters of planks—circular saws having sliced them like so much cheese.

In those vast chambers of clean, quick mechanism—fed at one end with tree-trunks, and elsewhere belching forth streams of boards, beams, laths, and shingles, with avalanches of chips and cascades of sawdust—in those vast chambers, I say, one's ears are put out of service by the shrieking din, and the visitor has the more occasion for his eyes. He must walk circumspectly, lest peradventure he be hurled hence by an iron arm, and cut with swift precision into thin, wet slices.

From the lumber mills I passed into regions where J. R. Booth makes wood pulp. My guide began by introducing me to a grinder—a huge affair that swallows six tons of logs a day and files them to fibre. Twenty-two of these grinders were growling away at their mammoth meals, and there were others, I learnt, in process of construction. It was certainly a case of

lost identity with the thick, grey stuff that went flowing on to the screens. That it had once been the solid part of a forest was a thought as unthinkable as that little boys would soon be running about with it in distant cities, shouting "'Orrible murder! Lytest special!"

The screens are discriminating. The bulk of the fibre passes through a one-hundredth-of-an-inch aperture, and is good for paper. Then the residue runs on a screen having apertures of about a sixtieth of an inch; and while that which penetrates the interstices is available for fine cardboard, that which remains above is suitable for coarse cardboard. Now the several streams of porridge are pumped upstairs to wet-presses that contain revolving cylinders. You next see the stuff clinging to a hurrying felt band that transfers it to wooden rollers. When several thicknesses have wound round a roller, they are cut with a pointed stick, removed, and folded; and there you have your mechanical ground pulp, which is nothing but washed wood fibre loosely matted by water. That mechanical ground pulp constitutes about three-fourths, in bulk, of paper used by the daily and weekly Press. I was conducted to the range of buildings where J. R. Booth makes the constituent which, with certain small accessories, completes the substance of our news-sheets. Again logs are the raw material. But this time they are not ground. They are first despoiled of their bark by one piece of mechanism; then by another piece of mechanism they are cut into chips. It seems ungracious to criticise a machine; but I observed that the "chipper" is apt to be a little remiss. Some of the chips it turns out are rather larger than J. R. Booth requires them to be. So all are subjected to a screen-

ing test, those of excessive size being dealt with in an auxiliary apparatus called a "re-chipper." The little nuggets of wood are now sent upstairs in a carrier, and shot into big bins, each of which holds nearly two hundred tons. Thence they pass through funnels into great steel digesters, in which they are packed down close with long iron rods. The digesters have an acid-proof lining of bricks and cement; and, to be informed of the reason for this, I was taken downstairs again. We visited a part of the premises which, by reason of certain fumes, suggested "Paradise Lost." I am not a chemist, and I cannot describe what the agents of J. R. Booth were doing with their immense supplies of lime and sulphur. It must suffice to say that they produced sulphurous acid and a horrid smell.

The former is conveyed to the upper story, and pumped into the digesters, previously packed with chips. "Digester" is the technical and literal description, for the acid-saturated wood is now cooked with steam for ten or twelve hours, at the end of which time it is reduced to white fluff. After being washed in cold water it is called sulphite, and is ready to be mixed with mechanical ground pulp to form paper, small quantities of china clay, size, soda-ash, resin, and blue and red earth being added as a kind of seasoning.

Such, at least, is J. R. Booth's recipe; for I found that, by a recent addition to his manifold activities, he now makes paper. They took me through the mill, a long building containing several machines stretched out in a perspective of great cylinders, suggesting the segments of a huge iron caterpillar.

It seemed that the mixture of pulp, sulphite, and

accessories has to pass through a refining engine on its way from one receptacle to another. Afterwards I saw it pouring like gruel on to each caterpillar's tail. Under a shower-bath of water sprays—necessary for breaking bubbles—the liquid paper ran on to rotating screens, and was received on moving belts of wire gauze. The endless web of grey liquid soon became a web of white substance.

My companion bade me note the "suction box." This was a gap in a metal cylinder, and as the material ran over that gap it was sucked inward, with consequent loss of moisture. Now watch its gliding, serpentine course over thirty cylinders, heated by steam, until, finally—as dry, warm, immaculate paper—it is wound into rolls of from four to five miles. Its journey has been to and fro, back and turn, for the cylinders are ranged in double and treble tiers; yet but a minute or so elapses between the fluid state and the finished stage, each caterpillar reeling off paper at the pace of 525 feet per minute.

I have forgotten how many tons of J. R. Booth's paper are now absorbed by England, what quantity goes to the States, and the proportion consumed in Canada; but I remember that thirty-nine rolls make a car-load, and that those destined for an ocean voyage are furnished with an extra wrapper and have their edges protected by burlap hessian.

To be talking with the Lumber King is to find yourself in the presence of a man unlike anyone you have ever met before, the reason being that J. R. Booth is content to be J. R. Booth. As a matter of fact, everybody is unlike everybody else; but the average mortal disguises his personality with conventionalities of manner, so that only after a while,

and from chance clues, do you "get to know him." J. R. Booth is natural and genuine even at a first acquaintance; in this respect, as in others, being a conspicuous example of a national virtue. For, whereas the island-bred Briton loves to present a surface of polished veneer, the Canadian is satisfied to be solid oak.

To have briskly opened the door, to have entered the office graciously smiling, to have uttered a few formal words of welcome—that is how it would have been with most people. That is not how it was with J. R. Booth. Sitting sideways at the corner of the table, I did not know he had arrived until, on turning, I found him, with head thoughtfully bent, quietly seated at right angles to me. A bearing so devoid of pretence wins instant confidence and respect, if at first it be a little disconcerting.

It was left to me to start the conversation, and I plunged into some unpremeditated talk about trees. What was the best sort for paper-making? Hemlock, he explained, was good, but any kind of hard timber would do if it hadn't gum in it. Gum prevented the acid penetrating the fibre. Couldn't they extract the gum? Yes; they were learning how to do that, and paper had been made from pitch pine after the turpentine and gum were extracted. Did his own processes yield any by-products? Well, a good deal of gummy substance came out of spruce during the cooking process, but it was mixed with the acid, and a market for it had not been found. "Except for the acid," said J. R. Booth thoughtfully, "it would make good chewing-gum."

In an interrogatory spirit, I mentioned the great trees of British Columbia. But the old man shook

his head. There was, it seemed, a great deal of pitch in them. "I don't know of any place in the world," he added, "where, for softness and lightness and durability, you would get anything to match our white pines."

But all this time—as the keen blue eyes seemed fully aware—my questions were unrelated to the matter uppermost in my mind. I really did not feel curious about the trees. It was not my intention to start a rival pulp and paper mill. I was not even proposing to write a treatise on the subject. My desire was to gain some clues to the working of an abnormal business brain. I sought to lead the conversation in that direction.

How much paper did he make? One hundred tons a day, and about forty tons of cardboard. How many hands did he employ? In summer, 2,400 at the mills, and very nearly as many more in the woods. Then I gave tongue to my thoughts.

"Paper-making is obviously a very delicate and complex matter," I said. "How came you to strike out in that new direction at the age of eighty, and when you already had such vast undertakings to engage your attention?"

Had I asked him the time, he could not have replied with greater readiness or in a tone more matter of fact.

"Yes," he said, "paper requires a great deal of care. When I took it up I didn't know anything about it, and that was a little disadvantage for a while. You ask why I took it up. Well, I had a railroad—four hundred miles—and I sold it. I felt rather lost without my railroad. So I took up paper."

Could any explanation be more complete or more

simple? J. R. Booth hadn't enough to occupy him, so he "took up paper."

Before going further with our conversation, I ought to explain what lay behind that other simple sentence: "I had a railroad."

From an admirable biographical sketch in *Collier's* I take the following interesting facts: "Booth had no idea of becoming a railway owner till Governor Smith, of Vermont, came along one day and told a hard-luck story. Smith and his associates had started the Canada Atlantic as a feeder to the Central Vermont, and the enterprise was costing money. They asked for the co-operation of Booth. They got it; and one day J. R. Booth woke up to the realisation that he must take the work over and carry it on himself if it was to be done at all. It might be throwing good money after bad, and it might not. Booth plunged again. He built the Canada Atlantic from Couteau Junction to Depôt Harbour, and he built the Ottawa, Arnprior and Parry Sound Railway, four hundred miles of main line and a hundred miles of sidings. He bought engines and cars and he built shops. There being no terminus on the Georgian Bay, he created a terminus. When the line was nearly completed to the bay, he invited the Premier of Canada, Sir Wilfrid Laurier—then in his first year of office—to go over it with him. They went to the end of the steel, and from there walked half a mile to the shores of the bay, described by Sir Wilfrid as 'a bleak shore, without a building upon it.' 'This,' said J. R. Booth, 'is the terminus of my railway.' The Prime Minister asked: 'Where is your trade to come from?' Booth answered: 'I shall have to create it. I shall have to collect it from Port Arthur, from Duluth, from Chicago,

and from both sides of the lakes. I shall have to build elevators. I shall, perhaps, have to buy wheat in order to furnish trade for my railway.'

"All that the one-time bridge carpenter told the Prime Minister he would do he did. He made Depôt Harbour. He built elevators. He put a line of steamers upon the lakes, and he forced so much of the Western trade into a new channel down through Ontario that the Canada Atlantic was carrying yearly two hundred thousand tons of flour and package freight and twenty million bushels of grain. The man who built it had seen to it that the railway was a good one. Other people saw that it was a good one. The Canadian Northern hankered after it. Seward Webb, of New York, went so far as to get an option on it —an option which is said to have left the New York financier poorer and J. R. Booth richer by a quarter of a million. The Conservative Opposition in the Canadian Parliament wanted the country to buy the Canada Atlantic, and join it to the Inter-Colonial as an alternative to the Grand Trunk Pacific project. The Government refused to do it, because they said that they could not do what J. R. Booth had done. Then along came the Grand Trunk and took the Canada Atlantic, and John R. Booth put fourteen million dollars down into his clothes."

I think he must, at first, have been glad to be rid of his railroad responsibilities. At any rate, that was one of the occasions when, as though in festive mood, he played the part of Santa Claus in the family circle, presenting each of his two sons and each of his two daughters with one million dollars—a little attention certainly calculated to fortify a parent in the esteem of his children.

But, as we have learnt, any temporary feeling of relief was followed by a sense of not having enough to do; and so he set in to assist feeding the newspaper Press and the cardboard users of Europe and North America.

And now to resume the report of our conversation.

"But," I said, when he confessed to having felt lost without his railway, "you still had your enormous timber business to occupy you?"

"Oh," he replied, "I've been in lumber so long that the exciting part of it has got worn off."

The "exciting part!" Here was a clue, and I eagerly probed further.

"Then the interest lies in the doing, not in the results?" I asked, speaking from the depths of my ignorance of what it feels like to be a millionaire.

"Yes," said J. R. Booth, "to build up and afterwards to improve—that occupies the mind, and is a great pleasure; but he is a miserable man who gets to the end of it."

His words carried a note of pathos to the ear. There was no mistaking the implication—a great organising capitalist, a millionaire many times over, was suggested as a case for compassion.

I did not speak. The earnest expression of those blue eyes told me there was more to come.

"The advantage," J. R. Booth went on, "is certainly with the manual worker, as distinguished from the man who does the mental part. If he is healthy, and sleeps well, and eats well, no man enjoys life more than the working man. Only," he added ruefully, "you can't make him believe it. I have been in both places, and I prefer the heavy end of it."

Those words were ringing in my memory when,

later in the afternoon, I was talking with one of J. R. Booth's lieutenants. He was telling me something that I scarcely needed to be told, namely, that the entire staff felt, not merely respect, but personal affection for the old man—the wonderful old man whose knowledge, patience and industry seemed without limit; the old man who was never known to be beaten by a difficulty.

And even while we were talking I chanced to look through the glass panel of a door that gave entrance to an inner office. In that office I again saw J. R. Booth. But it was J. R. Booth in a new aspect—an aspect that held my eyes enthralled. The Lumber King was leaning over a desk studying some document, his face alight with interest, yet immovable as marble.

Only once before in my life had I seen that absorbed expression on a human countenance. I was being conducted over the library of the late William Ewart Gladstone, while the venerable statesman sat there writing at his table near the window. A member of the family accompanied me, and began to explain, in a loud voice, the space-saving arrangement of the books. "Hush!" I whispered, "we must not disturb Mr. Gladstone." "He will not hear," came the hearty reply. "I had no idea," was my comment, "that his deafness was so serious." "Neither is it," I was informed; "but when Mr. Gladstone is absorbed in mental work a pistol-shot would not disturb him."

The unmoving face I saw last year in the Ottawa office, like that other unmoving face I saw years ago in the Hawarden library, seemed mesmerised, and to have the power of mesmerising me.

I was paying but scant attention to my companion's explanations about some knotty business problem that

had arisen to engage the attention of J. R. Booth. It was a matter, he mentioned, that must be settled before the mail went out.

At this I pricked up my ears, realising, with a curious sense of regret, that the old man's present ecstasy would be short-lived. This thought brought in its train a further reflection: obviously the paper enterprise was now running on a smooth and perfected basis. Therefore it must have lost its efficacy as a substitute for the railroad.

"When does Mr. Booth start his new venture?" I asked.

"But," exclaimed my astonished companion, "you surely have not heard——"

I hastened to explain that I spoke from the merest abstract conjecture.

"Strange!" he rejoined. "As a matter of fact, a new departure is in contemplation. Come back here in two years' time, and—well, I think you will be interested in what you see."

MARKET DAY IN MONTREAL: SCENE IN JACQUES CARTIER SQUARE

CHAPTER VI

TORONTO AND ITS EXHIBITION

MONTREAL, like Quebec, is rich in historic associations, fine old buildings, and French-Canadians. To stand on Mount Royal—a precipitous park rising to a height of seven hundred and forty feet—and look down over the magnificent, ruddy city of domes and spires, with the St. Lawrence sweeping away into a lilac haze of Canadian geography, is a thrilling experience one never forgets. When I last saw that scene, little birds were singing in overhanging trees, and I heard the peaceful music of bells ringing in the old convents far below.

In point of population, and because it is the headquarters of commerce, shipping and railways, Montreal holds the title of the metropolis of Canada. Its shops and theatres are superb, and greatly have I enjoyed my sojourns in that city. It makes a wide appeal to one's sympathies. It belongs not only to the present, but to the past. It represents old Canada and new Canada. It contains both Protestants and Catholics. And because of its manifold merits and ineffable charms, Montreal misses the quality that makes Toronto so fascinating.

Not that the two cities admit of comparison. As well might one weigh the attractions of Bruges against those of New York, or set the useful qualities of chalk against the nutritive value of cheese. Montreal is a city

of to-day and yesterday. Toronto is a city of to-day and to-morrow. The history of Montreal would make an interesting fat volume; Toronto's two-pennyworth of history would go into a paragraph.

I admire Montreal. But I simply fell head over heels in love with Toronto. It has a population of 350,000 progressive optimists. The whole city is full of bustle, but of bustle without hustle. It is a hive of healthy and vivacious industry. Toronto lives at the brisk pace that keeps the blood in a healthy glow. The people have discovered the happy mean between the hurry that wrecks nerves and the sloth that impairs digestion. Everybody in Toronto seems to be busy for the sheer joy of the thing. Tread on a man's foot in that city and, instead of swearing, he smiles—then goes bustling off on whatever matter of business may happen to engage his enthusiasm. Nobody in Toronto gave me the impression of working under a sense of mere necessity. Everybody seemed to find his or her daily occupation an absorbing hobby.

In a word, the spirit of Toronto is the newest spirit of the New World, undiluted. The life of Toronto is the life of modern Canada as developed amid the amenities of a city; and the life of modern Canada is the life of modern England—with the care and worry left out. The mechanic commands his £5 a week; a living wage, with some margin for luxuries, is accessible to everyone. The loss of a berth in London is apt to be a catastrophe. The loss of a berth in Toronto doesn't matter—you can easily get another. Hence the prevailing optimism. And optimism is a condition of progress. When a man is not living in daily dread of what the morrow may bring forth he dares to do things.

Toronto is a dashing, go-ahead, clean, handsome, well-governed city. It is not run in the interests of ground landlords and private monopolies. The inhabitants, when they pay their five cents for a ride by electric tramcar (and you go as far as you like for that), are putting money into their own pockets. Indeed, the municipal revenue from the tramway traffic since 1891 has totalled about £1,000,000, the annual instalments having appreciably assisted to keep down the rates. The tramway system is not a haphazard growth—it is not, as in some English cities, a tangle of unrelated parts. It is a scientific unity supplying means of quick transit over the twenty-eight square miles on which the city stands. No one dreams of walking any distance in Toronto. Its electric cars annually carry a number of passengers equal to the population of the United States.

Toronto, I say, breathes the spirit of progress and of the opening era—of the good new times controlled by a concern for the many, instead of for the few. Still in its early youth, Toronto is already one of the notable cities of the world. It is growing vigorously. Measure its future greatness if you can.

There is no need to preach Garden City principles in Toronto. Its administrators will never be under the necessity of seizing upon half-rood burial grounds, and clearing off the gravestones, in order to provide a gasping population with a little live air. In addition to broad, tree-planted thoroughfares, Toronto has fifty parks and gardens, covering an area of over fifteen hundred acres. Not that the city is in any danger of running short of unpolluted atmosphere, since it is situated beside a lake that is wider than many parts of the English Channel and nearly two hundred miles

longer. Moreover, electric power from Niagara obviates the nuisance of smoky chimneys.

Another source of substantial civic revenue is the water supply—that advantage being accompanied by the boon of low charges to the consumer. For a four-roomed house the annual water rate is 8s. 4d., subject to an increase of 2s. 1d. for every additional room, and to a like charge for a bath; while by meter the tariff is a trifle over 3d. per 1,000 gallons for ordinary manufacturers and nearly 8½d. for brewers. The local exchequer also derives considerable assistance from a system of licensing the vocations that derive profit from the organisation of a populous city. Thus the bill-poster, the milkman, the fish pedlar, the plumber, and the rag collector are among those who pay toll to the tune of 4s. 2d. per annum; the cab-driver being let off lightly with a fee of 1s. 0½d. The proprietor of an ice-cream parlour or of a wax-work show has to disburse £1 0s. 10d.; the auctioneer's yearly tax is £10 8s. 4d.; while the owner of each of Toronto's one hundred and ten taverns has to pay £340 for his annual licence. With regard to the last item, I may mention that, Canada being a free country, there are places in Toronto where a man may consume alcoholic refreshment, either in moderation or to excess, according to his individual bent; but neither in Toronto nor elsewhere in Canada do you find liquor shops at almost every corner, and dotted along the principal streets, as in England.

But, as I have already hinted, what particularly took my fancy in the Ontario capital was its population. When the people of Toronto do a thing, they do it heartily, and therefore well. Let me give an instance of their thoroughness.

Some thirty-and-odd years ago the authorities of the province decided to institute an annual Provincial Exhibition, and the people of Toronto assisted the project on the understanding that their city was to be the scene of the event for two succeeding years. This concession, if it were ever made, was withdrawn; whereupon Toronto felt spurred to institute a more important annual exhibition (on national, instead of provincial, lines) that should perpetually recur within its boundaries.

For this purpose it set apart an area of 260 acres in the heart of the city and having a frontage to Lake Ontario extending for a mile and a half. On that area it erected exhibition buildings—not temporary edifices of wood and plaster, but huge, handsome structures of brick, stone, concrete and steel. Then it beautified the surroundings with terraces, promenades and flower gardens.

Control was vested in a board of twenty-five directors, eight being elected by the City Council, eight by the manufacturing interests of Canada, and eight by agricultural associations, the remaining seat being allotted to the Minister of Agriculture. The first exhibition, held in 1879, was a success, the number of visitors being 101,794, and the receipts reaching a total of £11,400, while £3,400 was given away in prizes. Year by year the scope of the Exhibition has been enlarged, and year by year the success of the Exhibition has increased. Last year (1910) the visitors numbered 837,200, the receipts were £58,000, and the value of prizes £10,260. And note these two remarkable facts: the Exhibition is open for only a fortnight every year, and it always shows a handsome margin of profit. The amount in 1909 was £13,000. This surplus is

handed over to the City Council, to be used in extending the buildings and improving the grounds. When not in use for the Exhibition the place is available as a public park.

Thus the Toronto Exhibition is popular, prosperous, and permanent. Special excursions are run to it from all settled regions of Canada, the railway and steamboat companies granting reduced rates for the occasion. Also the event always attracts a host of Americans.

It is said—and I believe with justice—that so successful an institution of this character is to be found in no other country. What is the explanation, the reader will ask, of this remarkable achievement of a Canadian city? The only answer I can suggest is—enthusiastic thoroughness.

Let us glance at the scope of the Exhibition. From each section of the Dominion the Provincial Government sends a representative collection of local products. Distinct buildings are allotted to agriculture, manufactures, industries, art, transportation, dairying and machinery. In addition, there are an "Applied Art Building," a "Women's Building," an "Administration Building," a "Press Building," a "Dog Building," and a "Poultry Building." Stabling is provided for 1,500 horses, 1,200 head of cattle, and 600 swine. A livestock arena was recently constructed at a cost of £22,000. There is a grand stand (having a length of 725 feet and seating accommodation for 16,800 persons), which cost £46,000, and is built of brick, steel and concrete. Including police and fire stations, telegraph and telephone offices, a bank, restaurants, rest rooms, etc., the Exhibition buildings represent a value of nearly half a million pounds sterling. Apart from visitors,

THE PERMANENT EXHIBITION AT TORONTO: ONE OF THE BUILDINGS

there is a permanent population of ten thousand persons on the grounds during the annual fortnight.

To each day belongs a special interest. Thus, last year's diary was as follows: Saturday (August 27th), Preparation Day; Monday, Opening Day; Tuesday, Inauguration Day; Wednesday, School Children's Day; Thursday, Manufacturers' Day; Friday, Press Day; Saturday, Commercial Travellers' Day; Monday, Labour Day; Tuesday, Stock Breeders' and Fruit Growers' Day; Wednesday, Farmers' Day; Thursday, Americans' Day; Friday, Fraternal Society and Review Day; Saturday, Citizens' Day; and Monday (September 12th), Break-up Day.

Everything that Canada makes and that other countries sell to Canada is found at the Exhibition. In 1909 that represented a mammoth collection of goods which filled the four large buildings devoted to manufactures, transportation, industries and machinery, besides overflowing into a Manufacturers' Annexe, and into a vast area beneath the grand stand. Even so, the collection was cramped, so last year, to relieve the pressure, a special building was provided for British exhibits. Goods in process of manufacture are a feature of the Manufacturers' department, and dense crowds gather daily to witness the making of silks, cotton, shoes, and a hundred and one other articles.

The Exhibition attracts the finest collection of horses and cattle to be seen in Canada, the number of animals totalling about ten thousand, and including many herds specially imported to compete against those bred in the Dominion.

The Art Loan Exhibit, selected by a resident agent in England, affords Canadians an opportunity to see examples of the great European Masters. Prominence

is given to work done in the public schools of Canada, the co-operation of manual training colleges of the United States giving an international interest to this department. New inventions are another strong feature of the Exhibition. The first electric railway to be seen on the Continent was operated there, and that may also be said of the important developments in telegraphy, telephony, and other branches of applied science that recent years have witnessed. Nor does the energetic Board fail to provide high quality in music, military tournaments, and such frivolities as fireworks and variety-concert performances.

I cannot forbear in conclusion to quote the words used by the public-spirited directors to describe their achievement. "The Canadian National Exhibition," they say, "is the one place to see Canada at a glance. It shows all that Canada makes, mines, and grows. It gathers the products of her homes, her farms, her forests, her waters, her mines and her industries, within the limits of the finest Exhibition Park on the North American Continent. It is recognised from coast to coast, and from the frozen north to the Gulf of Mexico, as the greatest of all annual Exhibitions, distinctly Canadian in its characteristics, and educational in its tendencies, and yet including so many high-class amusements and attractions as to make it the annual holiday centre for three-quarters of a million people drawn from all parts of North America. And the number is increasing every year."

Bravo, Toronto!

CHAPTER VII

MANITOBA: CLUES TO PRAIRIE FARMING

STANDING on high ground in Manitoba—and also, for the matter of that, in Saskatchewan and Alberta—you may gaze upon a vast encircling panorama of grey grass and gentle undulations, visible in the dry atmosphere and bright sunshine to a remote purple distance. That is one sort of prairie, the open sort, so suggestive of the sea. Also there is bush prairie, with trees and heavy undergrowth. A third kind is scrub—the resurrected bush after forest fires have swept it.

But, whether you be on moor or woodland, you will see flowers and birds and bees. For Canada is a land of sunshine, blue sky, and beautiful perfumed blossoms.

Only by hearsay do I know of the North-West when the ground is jewelled with violets, blue anemones, ladies' slipper, and the bird's-eye primrose. I know it well, and like it best, in the season of the prairie rose—surely the fairest flower anywhere to be found on the world's circumference. It is petalled like our own wild rose, but of a sweet fragrance; the plant dwarfed and dainty, and nestling against the earth, with its upturned blossoms ruddy and conspicuous or of palest pink. I'm sure the fairies pluck buds of the prairie rose when they go to gather their posies. Indeed, I am sorry that the maple leaf—eloquently

though it advertises the flaming glories of the autumn foliage—should have been chosen for the national emblem. Canada will always be to me the Land of the Prairie Rose.

The queen reigns not in lonely majesty. Prominent in her court is a royal relative (the three-flowered geum), an orange-red lily (*Philadelphicum*), a scarlet columbine that dances in the breeze, and the evening primrose, with fringed gentian and a campanula among the purples, not to forget the wild bergamot and flax and a mauve convolvulus. In autumn, Manitoba and her sister provinces are aglow with nodding sunflowers, gaillardias, golden rod, Michaelmas daisies, and three kinds of rudbeckia. Thus the wild nosegay of Canada has much in common with the garden bouquet of old England.

Manitoba is the smallest and (because it contains Winnipeg) the greatest of the prairie provinces. "It looks like a postage stamp on the map," I happened to remark to its Prime Minister. "Well, sir," replied the Hon. R. P. Roblin, with twinkling eyes, "there are half a million people on your postage stamp, and that is but a fraction of the population it is able and destined to maintain. You might report to the English and Scotch farmers that we have over twenty million acres of good agricultural land waiting for them here."

It is, of course, the curious fact that, even in the smallest and most settled of the prairie provinces, oceans of superb land are still going a-begging. The area each year surveyed, and thereby rendered available for occupation, is as large as the area annually appropriated by the arriving stream of settlers. That stream is steadily increasing in volume, and to-day thousands of English and Scotch tenant-farmers, and tens of

thousands of their agricultural labourers, are cogitating the question: "Shall we go to Canada?" Some persons counsel that course. Others attempt to dissuade them. But what those hesitating farmers and labourers are conscious of needing is, not advice, but information—and information in the form of definite facts rather than of general statements.

It was with this thought in my mind that I had approached Mr. Roblin, who is not merely Premier of Manitoba and its Minister of Agriculture, but one of the foremost living authorities on Canadian farming, his knowledge being based on practical experience in cultivating a large holding in the province.

I told Mr. Roblin that I desired an authoritative account of the process known as "breaking the prairie," and he very kindly supplied me with the following particulars:

"Where the original prairie is thick and tough, it is customary to break and back-set. The former is best accomplished with a hand breaking-plough that has a rolling coulter, but, if the land be very smooth and level, fairly good work can be done with a sulky plough. In the case of such smooth land, the breaking should be shallow, and it is desirable to have the work completed by the end of June. The sod will be rotted a few weeks after breaking, and the land should then be back-set. This is done by ploughing in the same direction as before, but to an additional depth of about two inches, so that fresh soil is brought up to form a seed bed. Afterwards the land must be made as fine as possible with a disk-harrow, or similar implement. Then only a light harrowing will be necessary in the following spring, when the seed is put in.

"Where the land is rough instead of level, thin

breaking, of course, will not be practicable. Here the plough must go to an additional depth of from four to five inches, and the work should be done as early as possible in the year. Back-setting is unnecessary, but there should be a good harrowing to produce a level surface, as well as a further harrowing before seeding.

"So much for the two sorts of open grass land—the smooth and the rough. Now we come to the land that is covered with light trees and scrub. It will be found so very fertile as amply to repay the work involved in clearing it—work which, of course, bears no analogy to the task of dealing with the heavily timbered land to be found in other parts of the continent. The larger poplars and willows are chopped out, this being usually done in the winter. Then a fire is run over the land to burn off the remaining trees and the scrub. Afterwards the ground may easily be broken with a strong brush plough, and, when levelling has been done with a harrow, the seed can go in. Large returns are yielded by that class of land, of which immense areas are still obtainable, principally in Northern Manitoba, either as free homesteads or at a nominal price."

To practical farmers, as well as to other persons having a grasp of farming principles (and this chapter is designed to serve the interests only of those two classes), the foregoing clear and exact statement by Mr. Roblin will convey a definite knowledge of the easy agricultural preliminaries that have to be faced, not only in Manitoba, but also in Saskatchewan and Alberta.

From the expert and obliging Premier I sought and obtained other useful facts about prairie farming.

As to the wheat most suitable for Manitoba, I

THE FIRST STEP IN FARMING: "BREAKING THE PRAIRIE"

THE OAT HARVEST: EIGHTY BUSHELS TO THE ACRE

learnt that many kinds have been grown on the homesteads, while the search for new knowledge is never slackened at the Government experimental farms; but accumulated experience may be summed up in seven words—there is nothing to beat Red Fyfe. The plant is healthy and vigorous and very productive, the hard and white berry having unequalled milling qualities, with thin bran and high gluten contents.

Concerning oats, I derived the following information from the Premier:

With proper care, this grain does very well in Manitoba, and there is a yearly increase in the demand (both for feeding purposes and oatmeal), and consequently an increase in the price obtainable. In some districts the soil is more favourable for oats than for wheat. Careful selection of seed and thorough cultivation result in immense yields, many farmers reporting an average of eighty bushels per acre on large holdings. For a number of years the Banner oat has been most favoured by growers, this being a thin, hulled sort, very productive, and of excellent quality. The white varieties, known as Abundance, Ligowa, and Newmarket, also receive attention and sell at good prices for milling purposes. What can be done by good cultivation on the rich soils of Manitoba is illustrated by this fact: At the Brandon experimental farm, over a period of five years, the average yield of Banner oats, on summer fallowed land, and without the use of a fertiliser, was one hundred and sixteen bushels and four pounds per acre. In the rotation of crops the place occupied by oats is usually after wheat and before either a barley crop or summer fallow.

I learnt that the Chevalier varieties of two-rowed barley have not given satisfaction. Two-rowed Duck-

bills, such as Canadian Thorpe, are stiffer in the straw, and, as a rule, the heads fill well. The six-rowed varieties—notably Mensury and Odessa—have been found best adapted for general cultivation. They can be sown later than any other grain, and mature so early as to escape danger from autumn frosts. It nearly always happens that the straw is stiff and bright and that the ears fill well.

With regard to fodder crops, I learnt that farmers in newly-settled districts have no need for them, abundance of excellent hay being obtainable from the natural prairie grass on the lower lands and water meadows. When, with the growth of a district, those areas are drained and utilised as grain fields, the farmers have no difficulty in raising fine crops of timothy, western rye, millet, broom, and other grasses. Lucerne and the clovers also thrive well under proper treatment, while Indian corn grows to a height of from eight to ten feet, and, yielding about twenty tons to the acre, is excellent as green fodder or as ensilage.

Having thus gleaned the salient facts as to preliminary operations and the crops that do well in Manitoba, I obtained the following particulars as to methods of farming practised in the province:

"Most of the wheat crop is grown on land that has produced a grain crop of some kind during the previous year. After the stubble land has been ploughed as early in the autumn as possible, it is furrowed and left ready for sowing in the following spring. In the case of new land, this inexpensive method of cultivation usually results in large profits. Sooner or later, of course, a regular system of rotation has to be adopted. The common practice is to include a summer fallow in the rotation, the grain stubble being usually ploughed

in June, when the weed seeds have begun to germinate. Then the soil is compacted with a sub-surface packer, or similar implement, this operation being followed, during the summer, by thorough surface tillage, to kill weeds and prevent evaporation.

"Some of the largest and best crops of wheat are associated with summer fallowing, which greatly improves the condition of the soil. The more advanced farmers include grass in their rotation, timothy or western rye being usually sown with a nurse crop of grain, and the land being used for pasture after two season's hay crops have been cut. Where clover is grown, a nurse crop is not recommended, although in favourable seasons there may be a light seeding of hay to be cut early as a green feed. Excellent results have been obtained by ploughing grain stubble in spring, harrowing once, then sowing about twelve pounds of red clover to the acre, harrowing again, and rolling. When weeds of the 'volunteer' grain crop are about a foot high, a mower should be run over the land, the cuttings being left to form a mulch. The clover plants become large and well rooted before the autumn, and there is no danger that they will be killed by the winter. In the following year two cuttings of clover can be taken."

My attention was drawn to the fact that, the areas under cultivation being large, farm operations have to be carried through as expeditiously as possible. Hence the most improved machinery is in use on the homesteads. Immediately upon the ripening of the grain, large binders are set to work, and are kept in operation from dawn to sunset. At times a score of these machines, each drawn by four horses, are to be seen moving in close succession around an immense field,

with the result that, in a few days, the crop from hundreds of acres is safely stooked. In a few more days the standing grain is cured; then the farm is visited by one of the threshing outfits, which consist of powerful steam traction engines and separators. The threshing is done direct from the stook, and is carried out so quickly that only a few days intervene between the ripening of the grain and its delivery on the market.

I went into the question of live stock, beginning with the animal of chief importance in agriculture—the horse. The application of mechanical power in farming has gone much farther on the North American continent than in this country. In England or Scotland a man has to be content with tilling a farm; in Canada and the United States the ambitious grain-grower will often till a landscape, waxing exceedingly rich in the process. For the man who measures his land by square miles the seasons are no longer than for the man who measures his land by acres. He is, of course, in a position to multiply teams of horses to any extent, but—human labour being as scanty and high-priced on one side of the Atlantic as it is cheap and superabundant on the other—he can never be sure of securing enough men to drive the teams. So he turns eagerly to the machines, driven by petrol or steam, which are being placed on the market in forms of increasing efficiency.

But the average Canadian farmer, with his one hundred and sixty or three hundred and twenty acres, is dependent upon animal power for ploughing, harrowing, and reaping ; and, therefore, possible emigrants among our Scotch and English agriculturists will desire to learn something as to the quantity and, more

important still, the quality of the animal power available on the prairie.

The history of the horse in Manitoba, I learnt, is divisible into three chapters. In the early days of settlement, stock-raising was the mainstay of agriculture, and the pioneer farmers introduced into the province some fine horses and cattle, the imported stock thriving wonderfully on nutritious prairie grasses which had long sustained vast herds of buffalo. To this day, indeed, one hears of the magnificent steers that fed on the sweet upland pastures and revelled belly-deep in vetches and wild pea-vines. So much for the first chapter—concerned with the laying of a good foundation, whereof the influence is felt in some of the best studs and herds of to-day. Afterwards, Manitoba discovered how splendidly its soil and climate were adapted for grain-growing; and everybody turned his back on stock-raising and went in for wheat. Thus the second chapter represents a period in which the raising of horses was neglected. And so we come to the third chapter; and here I cannot do better than quote Mr. Roblin:

"Many a traveller has marvelled at the myriad beacon fires illuminating the autumn sky from the far-reaching stubble fields, where the straw piles are burned as soon as the threshers have completed their task. This improvident waste, coupled with careless methods encouraging the introduction and spread of weeds, is causing the pendulum to swing slowly back again. In order to improve the mechanical condition of the soil, to restore exhausted fertility and to control noxious weeds, the wiser farmers are now cultivating grasses and clovers, fencing their holdings, and giving serious attention to the raising of live stock."

There are about a quarter of a million horses in Manitoba to-day, and the supply does not keep pace with the demand. Until a few years ago the farmers were dependent upon supplies from east and west and from the United States; nowadays numerous animals bred in the province appear in the Winnipeg market, and command good prices.

In my part of the Old Country there is a saying that when it comes to buying a horse a man cannot trust his own brother; and I learnt from Mr. Roblin that, even in honest Canada, equine dealings have not always been above reproach. "Importers from the United States," I was advised, "not only brought with them American-bred stallions, but also introduced American methods of disposing of them. One of these methods was commonly known as 'syndicating.' Ten or a dozen farmers were induced to take shares in a stallion, and to sign notes of joint ownership. In many of these cases the stallion so disposed of was stated to be worth from £400 to £800, which was generally three or four times its actual value. The notes were discounted before maturity, and the salesmen decamped. Such practices have done much injury to the horse-breeding industry, but, happily, they are now almost a thing of the past."

Legislation, I learnt, has been introduced in the western provinces to foster horse-breeding. The objects of that legislation are to encourage the use of sound, pure-bred stallions and to eliminate others. Owners are compelled, under risk of a penalty, to register stallions with the departments of agriculture of the several provincial governments, certificates being issued that state, in the case of each animal, whether it be pure-bred or graded, and whether it be sound or unsound.

A copy of this certificate must be printed on advertisements and route-bills and be conspicuously displayed on the door of every stable occupied by the horse during the breeding season.

Draft breeds are the most popular with prairie farmers, Clydesdales predominating. There are also many Percherons and Shires. As numerous registered Clydesdale mares are stationed throughout the country, and as a good Clydesdale stallion is to be found on nearly every section, this breed is likely to maintain its position. Of horses bred on the average farm, few would scale up to the draft class, the majority having to be registered as agricultural horses because they weigh less than 1,600 lbs., while there are many horses bred from small nondescript mares that could only be styled "farm chunks." Although lacking in weight, these are useful horses on a farm, being hardy, and having good wearing qualities.

Concerning the lighter breeds, I learnt that there are many American trotting stallions in the country, and that excellent road horses are produced. Thoroughbreds, hackneys, and some of the coach breeds have been introduced into Manitoba, and among the resulting crosses are a good many saddle and heavy leather horses. These are useful animals for light farm work and for certain kinds of road work, but they do not command high prices.

Mr. Roblin certified that on the whole the country is good for horse-breeding, though, against the healthy climate and the abundance of good feed, one has to set a rather high mortality among foals from the disease known as "joint ill."

I now come to the matter of cattle. And here let me say that the English or Scotch farmer will gain an

excellent idea of Canadian conditions if, taking his balance sheet for a year, he will remodel it on the supposition that he has no rent, interest, or tithe to pay, and only a merely nominal taxation, in respect to a holding of one hundred and sixty acres or more, and on the further supposition that he has the free use of excellent and unlimited grazing outside that holding. To do this is to translate farming profits secured in one part of the British Empire into farming profits obtainable in another part of the British Empire. Indeed, the difference between the United Kingdom and Canada, from the agriculturist's point of view, is this: in the former country he is allowed to use the air, sunshine, and rain for his private profit free of charge; while in the latter country he finds another natural element also given away, and he no more has to reckon with a landlord than with an airlord or a rainlord.

Having owned and tended a cow or two in my time, and having a fondness for those beasts, I found myself regarding the prairie herds with a keen interest, and an interest not wholly free from jealousy. Grain-growing with up-to-date machinery on ample new acres that harbour few weeds and need no manure, was a sufficiently tantalising contrast to the elaborate methods necessary in an old country where land is precious and in need of costly fertilisers. But it was hard for an Essex small-holder to keep his temper on noting the simple, not to say automatic, lines on which kine may be kept in Manitoba, Saskatchewan, and Alberta. At least one cow will generally be retained on the homestead, and be duly milked, so that the farmer's wife may make puddings, and her children grow sturdy on an unstinted supply of cream and butter; but often enough the herd is permitted to look after itself and roam at

large on any unappropriated and unfenced land, drinking from rivers and growing fat on the nutritious prairie grass. I spoke to some farmers who confessed that, during the greater part of the year, they never see their cattle and have no definite knowledge of their whereabouts. Every farmer has his distinctive registered brand, and, before permitting his animals to depart on their wanderings, he sees to it that each bears the mark that will establish and safeguard his ownership. Where calving takes place in a herd out on free range, the unbranded youngsters will run with their mothers, and so remain within the pale of proprietorship.

"What a waste of milk!" was my comment. "Oh," the prairie farmer has replied, "I can't be everlasting rounding up the bunch to milk 'em. Then look at the daily bother of sending the stuff into town. No, sir, wheat is my line, and it pays me best to look after the land. Of course, the beef end of it is different. I don't mind driving a score or so of fat beasts to market now and again, and it's a few hundred dollars easily earned."

But I will no further pursue the thread of my personal experiences, since I have designed that this chapter shall contain comprehensive data, bearing the stamp of high authority, concerning farming on the prairie.

With regard to cattle, then, Mr. Roblin furnished me with these particulars:

"The little Red River cow of early days—rugged, short-legged, crumple-horned, and brindled — has almost entirely disappeared. The foundations of several herds of shorthorns were laid in the early 'eighties, and the progeny of these, and of many similar herds subsequently established, have been

widely distributed throughout the country. Indeed, the blood of this cosmopolitan breed now flows in the veins of most of our cattle.

"Of the special beef breeds, the Hereford and the Aberdeen Angus are fairly well represented. Where the calves run with their dams, and beef production only is desired, both these breeds, as well as Galloways, are found to answer well. They are good grazers, and mature heavy, compact carcases of the best quality. The cows, however, are not such good milkers nor so docile as shorthorns.

"Of special dairy breeds, the Holsteins are steadily gaining in favour. They are robust and large-framed, have great capacity for assimilating 'roughage,' and produce immense quantities of fairly good milk. Ayrshires and Jerseys have been introduced, but while the former are numerously represented in the dairying districts, the latter make no headway.

"In localities that have been longest settled, wheat has tended to displace cattle from the sweet grazing of the uplands and drive them to the lower-lying and flatter lands, where the grass is coarser and less nutritious. Consequently there has been some deterioration in the quality of the herds. But, with the adoption of more 'intensive' methods, including the growing of corn, clover, and lucerne, and with greater care bestowed on stabling, better results are accruing. Already there are indications that cattle-feeding is receiving due attention in Manitoba, and that cattle-raising promises to become in this province one of the most important branches of agriculture. The straw and screenings of the wheat-field, instead of being burnt, are destined to be 'marketed on the hoof,' the manure serving to fertilise and mechanically improve

the soil, thereby causing the grain crops to give a greater yield and to mature more quickly."

From Mr. Roblin's statement it will be seen that already, following the natural evolution of a country's agricultural development, the more settled parts of Manitoba have entered upon the stage of mixed farming. The factors that make grain-growing so remunerative have the same influence on dairying. Manitoba, like Ontario and Quebec, is alive to the importance of co-operation in this industry, and the machinery of cream-collection and of butter- and cheese-making in factories is working on a large and increasing scale.

With regard to sheep, Mr. Roblin supplied discouraging information. So far as climate and soil are concerned, the prairie provinces are admirably suited for sheep-raising. Moreover, prices for lamb and mutton rule high. But the coyote, or prairie-wolf, while harmless to other stock, preys on sheep. It is the farmer's one enemy in the animal kingdom of Canada. Governments and municipalities offer bonuses for coyote scalps, and ultimately, no doubt, *canis latrans* will be exterminated. Meanwhile those prairie farmers who have flocks of Shropshires, Oxfords, and Leicesters are put to the expense of close fences.

"But," said Mr. Roblin, "although I speak in this disconsolate tone about sheep-raising, it has, I believe, a great future; in this way. The prolific yield of the earth has caused farmers to become careless and to allow noxious weeds to grow rampant. Now sheep thrive and produce excellent mutton on these very weeds, which means that the sheep-owner is achieving a double purpose: he is cleaning his land very thoroughly—the sheep absolutely exterminate the weeds—and he is

securing a handsome return from his fine fat sheep in doing so." As for the outlet, Mr. Roblin declared that Winnipeg, "with half the population of Montreal, has double the demand for mutton." Indeed, he considers that the sheep-raiser finds a better local market in Manitoba than anywhere else in Canada.

With the advance of dairying, hog-raising is assuming importance. But, as Mr. Roblin pointed out, every farmer can, if he chooses, cheaply rear without milk a few swine on by-products that would otherwise be wasted. Not enough pork is produced in Central Canada to supply the local demand, but market conditions do not greatly encourage the industry. As the people of Manitoba want light, mild-cured bacon and hams, Yorkshires and Berkshires stand in chief favour.

Finally, I gathered these further facts of interest to anyone who contemplates tilling the prairie soil:

Currants, gooseberries, raspberries, and strawberries have long been cultivated profitably in Manitoba; and of late years some hardy apples have proved successful on the Siberian crab. All garden vegetables, save a few that require a long season, are grown to a high state of perfection in the prairie provinces. Eggs and poultry command a good market and receive increasing attention. Following upon the widespread cultivation of clover, bee-keeping has become easy and profitable.

WHEAT GROWING IN THE EASTERN TOWNSHIPS: LENDING A HAND AT STOOKING

CHAPTER VIII

AMONG THE DUKHOBORS

To watch the development of North America is to see Nature performing an endless conjuring trick with the human race. At New York, Quebec, and the other ocean ports there is that interminable procession of arriving liners, crowded in the steerage with persons who, in face, speech, clothes, ideas, and demeanour, are foreigners—foreigners obviously, and, as would seem, unalterably—yet when you travel about the country you make the bewildering discovery that they are not there. A family of newly landed foreigners, it is true, you may chance to fall in with, but the accumulated mass, the avalanche of emigrants who have been arriving in daily thousands for tens of years past—they have mysteriously vanished. And in their place you see millions of Yankees and Canadians who have dropped, apparently, from the skies.

The process of absorption, of adaptation, of transmogrification, is rapid, as two personal incidents may serve to show. Crossing the Atlantic recently, I happened to be standing in the between-decks promenade of the steerage, with my attention engaged by a group of inert Scandinavians, who—because of their strange attire and talk, their clumsy movements, and their wondering eyes looking out helplessly from flabby countenances—seemed creatures from another planet.

By way of contrast, there stood at my side a dapper little elderly man in a cowboy hat, and having alert and penetrating eyes and a neatly trimmed tuft of hair on his otherwise clean-shaven face—in a word, the typical smart Yankee as one sees him on the stage.

"I suppose," said I, a trifle dubiously, "those people will somehow settle into shape out in the West?"

"I guess they will," murmured the calm little Yankee.

"They certainly look a most unpromising lot," I blundered on.

"Perhaps they might improve," drawled my companion in the same even tone, and still looking straight ahead of him.

"They appear to be so uncouth," my evil genius prompted me to add, "so dull, so lacking in brains and breeding. In fact, they almost seem like——"

"Look here," said the little Yankee, as he turned to confront me, not indeed with any show of resentment, yet with a suggestion of mild protest in his keen gaze. "Some o' your ideas on this subject might not be just exactly what I should think. I'm Scandinavian born myself, having come over—a boy of fourteen—in a party as like as two peas to that one."

There remained for me, of course, nothing but a hurried confession that I should not have thought it, since, to my eyes, he looked the walking incarnation of everything that was bright, quick and admirable in the American character: which did something to patch up our relationship; but I am not likely to forget the lesson that, in talking to a Yankee or a Canadian, one is very likely confronting a dual nationality, with half of it hidden from view.

My other experience concerns a little girl named

Dolly. As I knew her before she and her people went to Canada, Dolly was a timid, clinging, winsome mite who, as the saying goes, could not say boo to a goose. Before the family had been a year in the new country I had the pleasure of visiting them in their home on the prairie. All were the same as I had known them before, and yet all, in some subtle way, were different. They had become infected by a spirit I can only describe as Canadian—by something that showed itself in a sort of hearty self-reliance—by something that Dolly illustrated for me in a very definite and memorable manner. Entering the parlour one afternoon, I found her a-perch the music stool, industriously playing the piano. "That doesn't sound much like a piece, Dolly," I happened to remark; "it's an exercise, isn't it?" "You bet your life it is," replied the complacent child, without turning her head or desisting from her performance.

A rapid assimilation of peoples is, in fact, a law of social development in North America. But the working of that law has, in the case of the Dukhobors, been suspended; and I have been laying emphasis on the rule only that my readers may be able more clearly to appreciate the exception.

I went to Verigin, the headquarters of the Quaker-like Russian vegetarians—the strange sect who were assisted to Canada by Count Tolstoy and a committee of European well-wishers, and who have since given some trouble to the Dominion authorities by declining to take the oath of citizenship and by perambulating the country naked in search of a Messiah.

I found a few Dukhobors living in ordinary Canadian houses at Verigin proper, where the community has a range of offices, a warehouse, a brick-yard, a

wheat elevator, and a flour-mill fitted with up-to-date machinery. Also there I found a handful of other nationalities (notably a Scotch family and a Roumanian family, who have both become Canadian), and they testified with two voices concerning the peculiar people in the midst of whom they dwell. But before referring to lines of cleavage in local opinion, I will briefly give my own superficial impressions of a community whose main principles have always engaged my sympathy.

They decline, on grounds of conscience, to serve as soldiers, and I happen to regard warfare between civilised nations as a hateful folly, admitting the peaceful and rational alternative of arbitration. They also object to slay animals for food, or for any other purpose, and, being myself inclined to a non-flesh diet, I was not likely to quarrel with that item of their humanitarian creed, even though I personally am unable to rise to the ethical height of sparing the lives of vermin. Thus such things as I shall say about these non-Canadians will at least issue from a mind unpolluted by prejudice.

The local section of the community (for other sections exist elsewhere in Canada) is distributed among several villages established within a short radius of Verigin. To one of those villages—Varnoe—I went on foot—or, rather, I went part of the way on foot; for a wagon overtook me on the road, and, addressing its two occupants (men who, by reason of their unanimated expressions and a Russian suggestion in the cut of their clothes, were easy to recognise as Dukhobors), I asked if they would kindly give me a lift. That my English was, however, thrown away upon them their expressionless faces clearly showed, so by

pantomime I indicated the way by which I desired to profit by their indulgence. They vouchsafed no smile of acquiescence and no frown of refusal; so, without more ado, I scrambled into the vehicle, which promptly resumed its journey.

Now, had those two Dukhobors been possessed of even a moderate sense of humour, not to mention the gift of human sympathy, they must, I think, have betrayed some passing appreciation of the predicament in which I had all unwittingly involved myself. For the wagon had no springs, and I was having the time of my life in the matter of jolting and jarring, with stirring sensations as of the dislocation of one's bones and the loosening of one's teeth, as that awful conveyance went blundering along the rough road. Nor did occasion arise for any compassionate concern on behalf of my companions, since the seat they occupied was fixed to pliable steel supports that must have ensured for them a reasonable measure of physical comfort. And when—having had about enough of it—I called a halt and dismounted from that unsympathetic vehicle, there was still no sign of fraternity from either of those two self-centred and apparently depressed Dukhobors.

The village—when I presently arrived at it—proved a surprising place, with strange, foreign-looking and picturesque houses having walls plastered with mud, but with a note of distinction in the disposition of the timbering, in the shaping of the windows, and in the gable ends of the heavy vegetating roofs. Moreover, the eye was grateful for variations of detail in the several structures, no two being exactly alike, though all were affected by common principles of structure and design—all, at least, save a central meeting-place in

prim brickwork, which was a civilised eyesore in that setting of primitive architecture.

But if the aspect of those Dukhobor dwellings could not fail to please an artist, their contiguity was calculated to horrify a social reformer. Here on the Canadian prairie, where one human habitation to 160 acres is the rule, there seemed something grotesquely gratuitous in a street of crowded houses, each with a little backyard that scarce afforded latitude for a pig, a wash-tub, and three gooseberry-bushes.

The men were either afield or indoors. But I saw a number of women. Some were applying mud to the walls, using their hands as trowels, and being copiously bemired from head to foot; others appeared and disappeared in their little gardens as they went sluggishly about their household affairs. Indeed, a sense of the sluggishness of those fat-faced, broad-bodied, heavily-clothed and big-booted women is the main impression they left on my mind. There were some children about, and they also seemed over-burdened with clothes and deficient in vitality.

The stranger excited no curiosity, and prompted no spontaneous greetings. My friendly overtures to the adults were rewarded with dull nods and a muttered syllable or two. Those people were all quite happy, I suppose, but they were living their lives in a minor key. If one of the boys (not readily to be distinguished, by the by, from the girls) had only called out or whistled, or even set up a hullabaloo of blubbering, it would, I felt, have relieved the tension.

After walking twice from end to end of the village, I determined to see if it were not possible, by hook or by crook, to make a Dukhobor smile. Squatting on a seat in front of one of the houses, I laid myself

out to secure the companionship of a little child who stood a few feet away, eyeing me with solemn misgiving. Not until I had produced my watch, fountain pen, bunch of keys and penknife, and spread them out before her, could the dubious youngster be coaxed forward. Yet her interest in these glittering valuables proved still-born; all my laborious attempts to show off their jingling and snappy parts being looked upon with a coldness bordering on boredom. However, that stumpy little Dukhobor toddler did at last manifest a spark of personality by earnestly pointing towards the grass at my feet; whereupon I plucked a bunch and held it out to her. The offering was accepted with alacrity and in a spirit of appreciation; hers being apparently the well-balanced type of mind which, content with things familiar and of established worth, is proof against the glamour of mere novelty. I gathered another handful of herbage and made a show of also surrendering that; but this time the chubby little fist stretched forth only to find the gift denied. Ten minutes later we were still doing that—attempts at surreptitious seizure sometimes prevailing against treacherous withdrawal, and the proceedings being frankly accepted by my tiny opponent as a legitimate and sporting way of passing the time. But all this time she did not smile. Nay, I had already begun to regard my aspiration as hopeless when, chancing to look round, I perceived that a Dukhobor woman—presumably the child's mother—was overlooking our contest with much the air of a referee; and when I caught the eye of that Dukhobor woman she gave me a most gracious and unmistakable smile.

Soon afterwards, I retraced my steps along the road, and, calling at headquarters, sought an audience of

the Dukhobor leader. But Peter M. Verigin, "Representative of the Dukhobor Society in Canada" (to give him the modest title which, on his visiting card, he gives himself), happened to be away on a journey. However, I was received by Mr. M. W. Cazakoff, the manager, who, in answer to my inquiries, made the following statement:—

"This is the Dukhobor Society's trading store, where we have wholesale and retail departments for the sale of dry goods, hardware, leather, boots and shoes, groceries, crockery, farm implements, etc. We have seven grist mills, including one of 400 horse-power; three brickyards, where over seven million bricks have been made; about 800 horses; 800 head of cattle; twenty-five threshing machines; a number of barns and stables, and a fine assortment of ploughs, harrows, and other agricultural machinery. We have 13,000 acres in Saskatchewan, it being worth at least thirty dollars an acre, and the Society has now bought 15,000 acres in British Columbia—at Castlegar, about thirty miles south of Nelson—where a beginning has been made with fruit-farming. So you will see that our community, which numbers between seven and eight thousand persons, has become rich. The people who have made trouble for us are not many—not quite a hundred—and they do not belong to us, and we do not like what they do. Their Russian name would be called in English: The Men Without Any Clothes. We hope they will not make any more bother."

Said the jovial Scotch miller, when I afterwards sat chatting with him in his cosy parlour: "I have a lot to do with the Dukhobors, and you may take it from me they are very nice people. As for the wild, fanatical set that sometimes go about with no clothes on, well,

they are just the eccentric ones, and they don't belong to the regular Society. One day I found a long-haired individual in the mill among those that work for me, a-whispering and talking away at 'em fit to beat the band. I saw what his game was—getting up one of those naked-crusade outfits to make a lot more bother. So I took and ran him out of the mill. They are normally as quiet, harmless, and industrious a people as you could meet anywhere. And such simple tastes they've got, too! Did you see that little patch of sunflowers along the road? Well, they grow them for their own food, and they munch away at the ripe seed as contentedly as possible. I tried those seeds once —but never again. A cut from the joint with some nice gravy is more in my line. All the same, you can't help respecting them for their principles, especially when they are always so nicely behaved. And as for Mr. Verigin and the other heads of the Society, you couldn't want to do business with nicer and more straightforward gentlemen."

Said the highly intelligent and much travelled Roumanian storekeeper: "Nobody finds any fault with the Dukhobors themselves; but the system under which they live doesn't give them a fair chance. They oughtn't to be kept in their present uneducated state, and allowed to live in a superstitious belief that Peter Verigin is their heavenly ruler. The Society make a boast of the property they have amassed; but what an infinitely greater amount so many thousand families would have produced by this time if each man had been allowed to take up his quarter-section and been a free and independent citizen, bringing up his children to be properly educated and to speak the language of the country, instead of carrying on traditions of ignor-

ance and superstition. As for their objection to bloodshed, and their preference for a non-meat diet—well, obviously those ideals can be preserved just as well by people who are mentally emancipated as by people living in a state of mediæval darkness. I am happy to say that, in spite of the measures taken to preserve the *status quo,* a little light is beginning to enter the community from without, and already many of the men have struck for independence, and withdrawn from the community. Some are living hereabouts on their own homesteads, and very fine and prosperous settlers they are proving."

And with what my Roumanian friend said I found myself in hearty agreement. Having escaped from the yoke of autocracy to the political freedom of Canada, the least the Dukhobors can do, it seems to me, is to shed the mental fetters of an ignorant Russian peasantry and become enlightened Canadian citizens.

CHAPTER IX

THE HISTORY OF THE C.P.R.

To establish a great country and christen it after one of its districts—in other words, to take the name of a locality and make it apply over a region stretching away for thousands of miles—is to provide succeeding generations of schoolboys with an opportunity to form life-long misconceptions. If, when London was made into a county, it had been christened Pimlico, we should have a rough parallel to what happened in the case of British North America.

Knowing that Canada has existed for more than three centuries, people are apt (as I have previously pointed out) to scratch and shake their heads over the fact that, while the United States in the south have acquired a population of 92,000,000, Canada numbers only 8,000,000 inhabitants. It takes a lot of explanation to make them understand that historic Canada was a comparatively small area abutting on the St. Lawrence River; and that modern Canada—the huge country stretching from the Atlantic to the Pacific—is only thirty-eight years old.

You have to hammer away at the fact that the word "union" is the key to the extraordinary contrast afforded by the population of Yankee North America and the population of British North America; that the reason why there was expansion in the south was because

the States were united, and that the reason why, until recent years, there was no expansion in the north was because, until recent years, the provinces were ununited.

They were ununited politically (a common allegiance not involving concerted action) and they were ununited physically.

Political union came by stages. The four principal eastern provinces (Canada West, Canada East, New Brunswick and Nova Scotia), as we have seen, joined forces forty-four years ago; distant Manitoba threw in its lot with them three years later; remote British Columbia entered the combination during the following twelve months, on condition that its isolation should be remedied by a railroad; and in 1873—or just thirty-eight years ago—with the adhesion of the remaining eastern province (Prince Edward Island) there came into existence the vast Dominion of Canada, embracing not merely the regions named above, but the enormous intervening and adjoining areas known as the North-West Territories.

Political union was accomplished, but its permanence was contingent upon physical union also being accomplished, for British Columbia had stipulated for a railroad. Thus the newly-created Federal Government found themselves confronted by a task which for magnitude and difficulty would have been worthy the statesmanship of a Julius Cæsar. They had to furnish their geographical colossus with a steel backbone. They had to lay parallel rails round a wide arc of the earth's circumference—traversing the untracked wilderness, skirting mountains and chasms, hewing a way through forests, blasting a way through rock, filling up bogs, lowering lakes and bridging rivers innumerable; they had to make a level roadway three thousand miles

long, placing sleepers a foot apart along its entire length, and building stations at intervals of sixteen miles.

The gigantic enterprise was put in hand; but continuity of policy proved impossible with a national executive that was subject to party changes. At the end of several years only 700 miles of line had been laid, and the Government were anxious that someone else should go on with the job. Eight daring capitalists formed themselves into a syndicate, and undertook to have the line constructed by 1891 in consideration of receiving twenty-five million dollars and twenty-five million acres of prairie. They made splendid progress, but, presently running short of cash, they asked the Government to lend them £6,000,000—accommodation that was granted on the understanding that the line should be finished in 1886, or five years earlier than had been originally stipulated. It was finished in 1885, and a few months later trains were running across Canada from the Atlantic to the Pacific. Hence its name, The Canadian Pacific Railway—long ago colloquialised by universal usage into the "C.P.R."

Federation rendered modern Canada possible. But modern Canada was created by a railway—by that railway—by the C.P.R. In 1881, before the line was commenced, the Dominion had 4,324,810 inhabitants, of whom 4,153,800 lived in the settled areas in the East—areas forming but a small fraction of the new country. The balance of population—171,000 persons, of whom nearly half were Red Indians—was distributed as follows: 66,000 in Manitoba, 49,000 in British Columbia, and 56,000 in the remaining far-stretching regions of Canada. To-day there are more than a million and a half people in those territories where,

before the railway was made, there were only 171,000; and—with the tide of immigration gaining in momentum every year—the national affairs of this earth provide no anticipation more assured than that the present inhabitants of Central and Western Canada are but the vanguard of a population which, within the experience of persons now living, will be counted by tens of millions.

Most railways have come into existence merely to serve a nation's needs. It was, as we have seen, the higher fate of the C.P.R. first to create the nation whose needs it was to serve. Out of that fact sprang traditions that have moulded the destiny and that conserve the character of one of the most gigantic, most powerful, most prosperous, and most public-spirited corporations in the world. It is sometimes said that a joint stock company has no soul to be saved and no hindquarters to be kicked. Irreverent remarks of that sort do not apply to the C.P.R. Those who have lived or travelled in Canada will not need to be told about that remarkable and unique institution. But the rest of the world are not in a position to know, and certainly could never guess, the rôle filled by that railway in a stirring national drama. To the Bourses of Europe the C.P.R. is only a triumphant corporation that makes a clear annual profit of over £5,000,000, that is constantly and successfully extending its enterprises, and that issues to its proprietors at par new stock that commands a high premium. But those facts merely reveal the C.P.R. in its public character. Its domestic character is the interesting study.

The C.P.R. is the servant, friend, partner (and, I had almost written, pal) of the settler in Central and Western Canada. No soul, indeed! Why, of the

C.P.R.'s several titles to the world's esteem, the first place must be given to what I can only call its psychological worth.

One of the growing community of prosperous grain-growers in Alberta was telling me the story of his early experiences—how he arrived with his large family on the land, and how he and his sons set to work and built their house. "Yes," I said, "but where did you and your family live before the house was ready?" "Oh," he replied, "the C.P.R. very kindly lent us a shack to be going on with."

Another settler, also reviewing his initial efforts, explained that, being a muff at his new work, he failed to make timely arrangements for harvesting his first crop, which consequently was ruined. "Having counted on the grain to see me through," he added, "I was fairly broke. But the good old C.P.R. came to my rescue. They gave me work near my place and paid me well, and next spring they lent me horses and fitted me out with seed—in fact, they helped a lame dog over the stile." A third Canadian farmer had bought irrigated land from the C.P.R. on the usual basis of easy annual payments. "But," he explained, "the minor canals had not been completed in our neighbourhood, and water did not reach my ditches until two months after I got there. Having to run up to Calgary, I called in at the C.P.R. and told them about it. They were most apologetic, and said they were very much to blame, as the land ought not to have been sold as irrigated land until the water was actually there; so, quite of their own accord, they gave me an extra year's grace before my first payment became due."

There is a conscientiousness about the C.P.R., a thoughtfulness, a something that is downright human,

not to say kind-hearted. In travelling across the ocean and the land you see the big things of the C.P.R.—its magnificent liners, its palatial hotels, its superb feats of engineering—but somehow the real greatness of the company seems to lie in the little personal acts of which I have given three examples. It is difficult to find a definition that fits the C.P.R. To liken it to a philanthropic society is out of the question; one cannot associate the idea of philanthropy with an organisation which, with its stock ranging well above 200 "on Change," distributes over £3,000,000 per annum in the form of a 10-per-cent. dividend. The C.P.R. leaves upon the mind an intangible impression of a paradoxical character. It suggests a sort of Socialist Government run by shareholders for profit.

Chatting with a puzzled C.P.R. officer, I tried to make him realise how deeply a visitor from England was impressed by the C.P.R. in its ethical—quite apart from its engineering and financial—aspect.

"But, don't you see," he argued, "that the C.P.R. is directly interested in the success of every settler, and that the greater his success the more grain and other freight will he send over our line? Besides, the more a man prospers out here, the more powerful is he as a human magnet to attract friends and relatives from the old country. Looked at from those points of view, every new arrival is an important asset, and we have to see to it that the asset matures. In other words, if through inexperience or want of cash the settler meets with difficulties at the outset of his career, we have a definite interest in helping him through those difficulties. As a matter of fact, in advancing money for seed, etc., we run no appreciable financial risk, since certain success awaits the Canadian farmer who sticks

TYPICAL NEW TOWN IN SASKATCHEWAN, VIEWED FROM THE PRAIRIE

STREET SCENE IN A NEW TOWN

to his work, provided he possesses the necessary modicum of common sense. If he is any good at all, we know he will get on all right, even if he does not know that himself. Therefore I assure you the action of the C.P.R. has a strictly business, not to say selfish, basis."

Yes, yes, I could see all that; but, still, the virtues of the C.P.R. had not been explained away to my satisfaction. Many transportation and other companies have an interest in serving the public, but they act within the limited sanction of prearranged routine, and their servants are held in leash by red tape. I had never before come across a capitalistic corporation which offered a helping hand to anyone in need of it, dealing with each case on its merits. I had never before encountered a capitalistic corporation which, through its thousand and one agents, acted in all matters with ungrudging and anxious zeal. All along the broad tract of country that it serves, the C.P.R. is a watchful, ministering, unseen, personal force. It is actuated by an almost paternal but wholly unobtrusive sense of responsibility towards the country it has created and the people that country contains. I might fill this chapter with different examples of how interest is shown and assistance rendered. I can even give an example that is of purely personal application to myself. Last autumn it became known to the C.P.R. that I, a visitor from England, was laid up with a temporary indisposition in a hotel at Gleichen, Alberta. The C.P.R. wrote to say it was sorry! You may smile, gentle reader, but such was the pleasant fact; nor am I prepared to deny that the process of convalescence was assisted by the knowledge that, in my short lapse from health, I had the brotherly sympathy of an institution that represented £80,000,000 of capital.

Common sense scouts the idea that the C.P.R., in the pains it takes to assist the farmers of the prairies and the fruit-growers of British Columbia, is actuated by a conscious desire for more freight (it already carries 113,000,000 bushels of grain per annum), or for more passengers (of whom its yearly total has grown to 11,000,000—a figure, by the by, which, since it is larger than the population of the Dominion, shows that many Canadians travel frequently). Nay, the country having now entered upon an era of rapid and automatic growth, the prosperity of the C.P.R. is bound to increase, irrespective of what may be called the fraternal side of its activities. What is more, it has been shown to the satisfaction of financial experts that even were the C.P.R. divorced from its railroad, and the revenue derived therefrom, it could continue to pay its 10 per cent. dividend.

No; I am convinced that to explain the personal services that the C.P.R. renders to the community, to understand why the C.P.R. is a kind of joint stock Government, we must hark back to the conditions that fixed its traditions.

In its early days the C.P.R. had to face powerful enemies, great difficulties, and the burden of anxiety that is inevitable where heavy capital outlay has to precede opportunity of remunerative revenue. Its critics said the line could never pay. Its promoters were supported only by their faith—their faith in a population that had not yet arrived. Nowadays it is difficult to realise that in 1885 men had still to be convinced of the fertility of the western prairie. For centuries it had yielded the world nothing but the furry coats of the animals roaming its unpopulated wilds. Even amid the strenuous work of constructing the line at high pressure—with gangs of engineers, navvies and station-

builders forming a great graded army of men, accompanied by thousands of horses, which pressed forward in orderly sequence from section to section, each camp of toilers working in an organised relation to the base of supplies following them across the country—even at that initial stage of its vast enterprise did the C.P.R. begin studying the interests of the future settlers. Special agricultural gangs were put on the construction trains, and at intervals of about twenty miles they alighted and ploughed a few acres, which were afterwards seeded, with the result that, though the cultivation was of the roughest, and no measures were taken to keep marauding animals at bay, such heavy and excellent crops were produced that the high potentialities of soil and climate were triumphantly advertised. Thus early did the C.P.R. "show the way" and identify itself with the practical interests of settlers in the West. It had land to sell them, it was providing them with lines of communication, with means of transport. It followed that the new population would be largely dependent upon the railway. But the railway would be wholly dependent upon the new population. Its fortunes were contingent upon this one factor—whether people should come and prosper and be satisfied. That factor controlled the C.P.R.'s policy and established its principles. For its rescue from the sea of financial indebtedness could alone be effected by the settler.

To the extent of that indebtedness I have already given some clues. Let me give a few more.

The 200-miles section along the north shore of Lake Superior cost £2,400,000, a path having to be blasted through granite and flint, in which process £420,000 worth of dynamite was used. At Pic River stone piers had to be built to carry an iron truss bridge at an

elevation of one hundred and ten feet above the water level. At Jackfish Bay three miles of winding track were necessary to accomplish half a mile of progress, the bridges, tunnels and galleries on that section costing £300,000. In 1882 four thousand men, having 3,400 horses and 1,700 four-wheeled wagons, were at work on the road, fixing rails, sleepers, spikes, fish-plates and bolts. In fifteen months 677 miles of main track and 48 miles of sidings were constructed, ten million cubic yards of earth being moved in the process. Between Calgary and the Bow River Pass from two to three miles of bridges had to be made. Between Port Moody and Kamloops—213 miles—the engineers had to cut twenty tunnels, representing a total length of one mile and three-quarters, through granite and crystalline limestone. In the mountain district of the west the line had to reach a height of 5,321 feet above sea level. Kicking Horse Pass presented engineering problems which could only be successfully surmounted by protracted toil; but British Columbia was impatient for the railway, and so at that point a temporary section was constructed which sacrificed the easy gradient elsewhere secured, and for years afterwards several powerful locomotives were required to pull each train up the consequent "Big Hill." That formidable incline has since been superseded by an alternative section, costing £300,000, and being seven miles of winding track, which embraces two spiral tunnels through the mountain, and two steel bridges (separated by only a few hundred yards) over the Kicking Horse River, which, by the way, is crossed nine times by the C.P.R., six of the bridges being within a distance of twelve miles. Another zig-zagging piece of work occurs in the Illecillewaet Valley, where the line turns south, crosses a

ENCAMPMENT OF CHIEF MOSKOWEKUM OF THE CREE TRIBE

high bridge and curves back almost to the starting-point, but at a lower level, then forms another great curve across a ravine, being 120 feet lower down on its return, afterwards doubling upon itself and crossing and recrossing the river; so that a spectator on one of the neighbouring heights can see a sinuous railway that reveals six tracks running almost parallel to one another, each on a different level and each supported largely by huge trestle bridges. Miles upon miles of the line, where precipitous mountains are skirted, had to be protected by timber corridors roofed at an angle to deflect avalanches.

The Red Indians, not yet fully subdued, caused some inconvenience to the constructors of the C.P.R. Many of the imported navvies went in dread of the painted braves, who were a little disposed to presume on the fears they excited. Fortunately, the North-West Mounted Police were in existence, and the historian of that force, Mr. A. L. Haydon, has told us what occurred.* I give the following account of a typical incident:

"It was in the early days of the C.P.R.'s progress across the prairies that the Pie-a-Pot incident occurred. Readers of Mrs. Steel's stories may remember one which tells how a Hindu fanatic squatted in the permanent way of a new railway line in India and resisted all efforts to dislodge him, until at length he was run over and killed. The fanatic in question had a religious motive for his defiant attitude. So much could hardly be said of Pie-a-Pot the Cree, who took it upon himself to play the same game. Pie-a-Pot and his band had been giving no little trouble to the police about this time. He and another chief named Long Lodge had

* "The Riders of the Plains." (Andrew Melrose.)

left their reserve and were wandering about the country at large. This proceeding was contrary to the law, and particularly so as their followers were all armed, and had the reputation of being a turbulent crowd.

"What happened to bring Pie-a-Pot into sudden collision with the police was this. Fetching up with his band at last at a point some little distance ahead of the railway line, he encamped. His tepees were put up, the carts unloaded, the horses sent out on the prairie to feed, and there was every indication that the wanderers had found a choice spot from which they did not intend to move. By and by the railway track advanced closer towards them, and the contractors looked askance at the Indian settlement.

"Pie-a-Pot paid no attention to the oncoming army of white men. He was there first; it was his chosen location; let them shift him if they dared. The railway authorities sent emissaries demanding his evacuation of the spot; but Pie-a-Pot laughed at them, while his 'bucks' rode excitedly about on their ponies and fired off rifles at random, and shouted of what they would do to the whites if it came to a fight. Matters were at a deadlock. The railway men could not go on so long as the Indian camp blocked the way.

"Then the Lieutenant-Governor of the Territories was appealed to, and ere long there came a despatch from the North-West Mounted Police headquarters at Regina to the little post at Maple Creek, much to this effect: 'Please settle trouble; move on Indians.' On receipt of the message two men were at once detailed for the task. One was a sergeant, the other was a constable. With a written order to Chief Pie-a-Pot, an official notice to quit, they rode out quietly to the camp and made known their instructions.

"Their arrival was a signal for a fresh outburst on the part of the Indians. In their nomadic life the members of this band had not yet, to put it literally, run up against the law as personified by the North-West Mounted Police. They knew them by reputation to be firm, hard-dealing men whose hand was heavy upon the wrong-doer, but they had no practical experience from which to learn caution. So they surrounded the two guardians of law and order, jeering at them, backing their ponies into the police horses, and otherwise trying to discompose them. The sergeant and the constable, in their scarlet tunics, with the smart-looking pill-box forage caps set at an angle on their heads, meanwhile sat still, the former reading his order, which was that Pie-a-Pot must break camp and take the northward trail.

"To this command the chief insolently refused to listen. The sergeant pulled out his watch. 'I will give you fifteen minutes,' he said calmly. 'If by the end of that time you haven't begun to comply with the order, we shall make you.' The quarter of an hour passed without any sign of a move being made. Pie-a-Pot sat in front of his tent and smoked. Round him and the policemen had gathered all the rest of the tribe, 'bucks,' squaws and children, most of them yelling abuse and urging on the bolder spirits among them to still further exhibitions of defiance. The firing of rifles almost in the faces of the red-coats was one form of sport indulged in, but it was of no avail.

"'Time's up!' said the sergeant, replacing his watch in his pocket. Then that amazing man dismounted, threw the reins of his horse to his companion, and walked over to Pie-a-Pot's tepee. One kick of his foot at the key-pole and the painted buffalo-skin cover-

ing collapsed. Ignoring the shrieks of the discomfited squaws thereunder, and the threats of the men, the sergeant proceeded through the camp, kicking out key-pole after key-pole until all the tents had been overthrown. 'Now git!' was what he said—or might have said, in the absence of any exact record of his utterances. And it is some tribute to his sagacity that Pie-a-Pot did so."

There was not, it will be noted, any real fight left in the Indians; but this could not be said of the allied race, the Half-Breeds. They were at that time on the eve of their rebellion; and it is interesting to note that the C.P.R. was completed in time to be of service in that affair. On May 18, 1885, the last rail was laid in the line skirting Lake Superior, and the very next day the Montreal artillery militia passed over that line on their way to assist in suppressing the Riel rising.

And soon the procession of immigrants was moving across the country, to quicken Manitoba and British Columbia into vigorous growth and found the intermediate provinces of Saskatchewan and Alberta. Then the C.P.R. saw that its faith would be justified. A beginning had been made in tapping the agricultural and mineral riches of Western Canada. The railway was the steel key that had unlocked a treasury of incalculable wealth—wealth that poured forth, and continues to pour forth, in a stream ever expanding with the growth of population. Solicitude for the well-being of new settlers became the bed-rock of C.P.R. policy. On that basis, the company won its way to a prosperity that was assisted by developments which, in their magnitude and the foresight that inspired them, were fitting sequels to the original enterprise. Early the C.P.R. provided three steel steamships to traverse the

Great Lakes—craft since supplemented by magnificent Clyde-built vessels. Later it made a new water connection, with car ferries plying between Windsor, in Ontario, and Detroit, in Michigan. Afterwards the C.P.R. turned its attention to the lakes and rivers of British Columbia; and to-day on those waters it controls some twenty vessels, several of them of considerable size and appointed with superb quarters for travellers. Another fleet of twenty steamships carry passengers and merchandise between ports on the coast of British Columbia. But the C.P.R. has not been content merely to navigate Canadian waters. Early it established a trans-Pacific service connecting the Dominion with China and Japan, the pioneer vessels being replaced in 1891 by the famous *Empress of India* and her sister ships, which established a new standard of comfort in ocean travel. A later development was the trans-Atlantic service, also furnished with superb liners, and providing new means of communication between Canada and Liverpool, London, Bristol and Antwerp. Thus the C.P.R. has already extended its sphere of operations two-thirds round the world; all that is needed to complete the circle being a service of C.P.R. aeroplanes across Europe and Asia. The company's combined fleets include sixty-seven steamships—a number about equal to all the battleships of the United States, Japan, France and Russia. The C.P.R. vessels, placed end to end, would form a line three and a half miles long. Between them they consume every day 2,903 tons of coal. Their crews and shore staffs form an army of 11,294 men. They annually cover a mileage equal to fifty-seven journeys round the earth.

Nor, on the land, has the C.P.R. been content with its three thousand miles of track stretching across the

continent. To-day it controls over eleven thousand miles of railway, on which there are running 1,534 locomotives, 1,870 passenger cars and 48,850 freight and cattle cars.

Besides owning and working so many means of communication, this amazing railway company has endowed Canada with a chain of sixteen fine hotels, including the famous Château Frontenac at Quebec—a stately structure that cost £600,000 and has accommodation for a thousand guests; the Royal Alexandra, at Winnipeg, which, like the hotel at Vancouver, yields a yearly profit of £12,000; the Empress, at Victoria, which annually puts £14,000 into the coffers of the company; and the luxurious hotels, fitted with exquisite taste, at Lake Louise, Banff, and other health resorts in the mountains.

There is one thing that the C.P.R. does not do—it does not go in for farming. It might do so. It has enough land to carry on farming operations upon a scale commensurate with its other affairs, and to the tune of an annual profit that could not fall far short of £10,000,000. Providing and organising the necessary labour would constitute a difficulty (because, in a country where everybody can secure his own freehold, and grow prosperous in cultivating it, no one is content long to till the soil for an employer, let the wages be never so high). Still, the history of the C.P.R. affords abundant proof that it is not to be baulked by a difficulty; and therefore we must look in another direction for the reason why the C.P.R. does not farm, and probably has never so much as thought of doing so. Such action would be contrary to the purpose, policy and principles on which the fortunes of the C.P.R. have been founded. It is there to assist, not to com-

pete with, the population. It sells its land. The quantity it sold last year was 975,030 acres, at an average price of £2 13s. 3d. per acre—an average price, by the way, that leaves out of account the irrigated land, of which 145,421 acres were sold, at £5 10s. 9½d. per acre.

Mention of the irrigated land prompts some reference to an undertaking which, while sufficiently interesting on its own merits, serves as an excellent illustration of the enterprising spirit in which the C.P.R. promotes the welfare of Western Canada and its people.

Part of the territory that came into the possession of the company was a stretch of land—between Calgary and a point some thirty miles west of Medicine Hat—which, while its capacity to produce bumper crops had been demonstrated, was liable in certain seasons to suffer from an inadequate rainfall. And since an occasional loss of crop is apt to have a demoralising effect, more particularly on new settlers who have not had time to accumulate a financial reserve, the C.P.R. decided that, before putting those 3,000,000 acres on the market, it would counteract the natural shortcoming, and ensure the agriculturist against loss, by carrying out a system of irrigation. For this purpose the area was divided into three sections—a Western Section, a Central Section and an Eastern Section. The Western Section was put in hand first, and, at an expenditure of over £1,000,000, the C.P.R. tapped the Bow River with a canal seventeen miles long, and of a width that varied from 60 feet at the bottom to 120 feet at the water level; it constructed a reservoir three miles long, half a mile wide and 40 feet deep; and it excavated 1,600 miles of primary and secondary canals (the former being 120 feet wide by 10 feet deep) and

distributing ditches. These extensive works, involving the removal of more than 8,000,000 tons of earth, necessarily occupied some years; and thus, long before the canals and ditches had reached their limits, the artificial water supply had been tested for a season or so on parts of the area that were dealt with first. That early experience was conclusive; and the land was eagerly taken up. Now the C.P.R. have commenced to irrigate the Eastern Section—an area of 1,100,000 acres—and the work, which will occupy about three years, is estimated to cost £1,700,000. In this case heavier expenditure is necessitated by a greater difficulty in reaching the source of supply, and 3,500 miles of canals and ditches have to be constructed. Afterwards the Central Section will be put in hand.

On visiting a number of irrigated farms in the Western Section, I found their prosperous proprietors enthusiastic in praise of artificial watering, of which, indeed, the fruits were visible. Not that an abundant harvest is the only advantage yielded by the system. In the glorious Canadian sunshine, herbage is liable to become so dry that a chance spark will set it on fire; and farmers bore grateful testimony that, when this has befallen, the opening of an irrigation ditch proved an easy means of arresting the trouble. Again, food fishes are swept down the excavated waterways; and many an agriculturist, on discovering trout and pike flopping about in his furrows, has found himself with a strengthened faith in the wisdom of the C.P.R.

Nor must I omit to mention a new style of colonisation that has been devised and introduced by this inventive and indefatigable company. Hitherto, in the history of Canada and other new countries, the rule has been for a settler to arrive on empty land, and find

himself compelled to build a habitation, dig a well, knock up outhouses and erect fencing before he can address himself to the crucial matter of cultivating the soil. In a flash of inspiration, it occurred to the C.P.R. that this awkward and irksome beginning of the new life is not inevitable; and that, before offering land for sale, they might just as well put the required buildings and appurtenances upon it, so that the new-comer who buys it shall be spared protracted initial labours for which, in all probability, he lacks the necessary training.

This novel idea grew and blossomed. The C.P.R. fenced off a number of holdings, and upon each built a neat little home, with a living-room, sleeping apartments, and a kitchen fitted with a large cooking stove. On each homestead it also built stabling and a barn, provided a source of drinking water, and set up fences. Nor did the C.P.R. stop there. In each case it ploughed forty acres of the land, and, in the following spring, seeded them. It thus prepared a group of "Ready-made Farms"—to quote the name bestowed upon these remarkable innovations in the domain of colonisation. They were offered on the C.P.R.'s usual terms of payment by instalments—the first of twelve annual instalments to be due after the first crop was harvested. It was merely stipulated that each family should possess at least £200, to carry them over the initial stage of their new existence.

The arriving stream of Canada's immigrants—or, rather, the assembling army of Great Britain's emigrants—provided many competitors for these new opportunities. I do not know whether the C.P.R. made a selection from among those competitors, or whether it accepted the earliest applicants. But, having visited last autumn the first group of Ready-made

Farms to be occupied, I can testify that the hundred new neighbours, whether chosen by chance or discrimination, looked to be the sort of energetic and enthusiastic men who could be trusted to profit by the favours of fate. Those farmers (who, for the most part, followed other callings in the old country) had found their first crops in vigorous growth; and when I arrived they were largely occupied—with powerful machinery bought by the communal purse—in enlarging their areas of cultivation.

And in this connection I cannot forbear to mention a visit I paid, in that district, to one of the C.P.R. experimental farms. There I found an enthusiastic professor of agriculture, whose duty it was not only to test various grains and roots under local conditions of soil and climate, but to place his knowledge at the disposal of C.P.R. settlers who were in doubt or difficulty. During my brief stay several inquirers were attended to, their problems ranging from how potatoes should be stored to where a couple of good horses could promptly be purchased. Meanwhile, the professor's buggy was waiting at the gate, and it seemed he was due to depart on a round of visits to farmers who, as I gathered, wanted to be shown how they could use their land to greatest advantage.

Thus this great corporation, originally and nominally a railway company, has brought nation-building to an art and a science.

Finally, I cannot refrain from mentioning two incidents that gave me personal peeps at the internal working of the C.P.R. Standing one Sunday afternoon on the crowded platform of Moose Jaw railway station, I witnessed the arrival of a train which, since no passengers were allowed to enter it, was easy to

identify as a "special." It held my attention for another reason. From an office on the permanent way there issued a squad of men clad in white overalls, immaculately clean, each with a bright little nosegay pinned to his breast. Some carried short ladders, others held pails, and each was armed with either a mop or a swab. Thus variously burdened, they ran with smiling faces to the train, and in a twinkling their many hands were busy on its exposed surfaces. Nor had two minutes passed before those dirty and travel-stained cars were aglow with polished panels, bright windows and shimmering brass. As the train moved out of the station I caught sight of a military looking figure standing in the gangway at the rear, his face alight with gratification. It was all a profound mystery to me until I sought explanations from one of the festive grooms, as he stood to recover breath after his late exertions.

"Oh," he proudly panted, "that was Sir Thomas Shaughnessy, president of our road! I guess we sort of give him a surprise."

A few months later I had occasion to visit the headquarters of the C.P.R. at Montreal; and, reaching an upper story of the great building, I found myself in the outer lobby of the directors' department. It was, as luck would have it, a Saturday afternoon, and therefore I feared to find the place deserted even by such minor authority as could deal with my unimportant business.

"Everyone gone?" echoed the astonished office boy. "You bet your life they haven't. The president's in there"—indicating an office with his thumb. "There's a vice-president in here"—again pointing—"and another vice-president over there"—directing my

attention to yet a third door. "They're mighty busy. Who d'you want to see?"

Having satisfied his curiosity on that point, I ventured to remark that they were working late.

"Late!" he protested. "It ain't late. Why, they'll be here till eight or nine to-night—Sir Thomas and the rest of 'em. And me, too! There's always a lot to do on Saturdays."

In a few words I told him of the week-end institution that had taken deep root in business circles on British soil.

"That wouldn't suit us," declared the C.P.R. office boy emphatically. "What! Go off pleasuring when there's work to be done? Not likely!"

SUNFLOWERS GROWING ON THE PRAIRIE AT VERIGIN: FOOD FOR THE DUKHOBORS

CHAPTER X

THE NEW HUDSON BAY ROUTE

In the preceding chapter I showed how a huge stretch of Western Canada was opened up to civilisation and settlement by a railway. Another momentous development within the Dominion is about to occur. I refer to the project (now in hand) for constructing a railroad that will link Winnipeg with Port Nelson, on the western shore of Hudson Bay, and so give Central Canada a seaport—a seaport open seven months in the year.

The 397 miles of rails that remain to be laid will provide a shorter and cheaper route between the prairie provinces and Europe. In mere distance, the journey from the Manitoba capital to Liverpool will be reduced by about 900 miles. But that fact indicates the least part of the boon that is promised to commerce. The cost of carriage by land is considerably higher than the cost of carriage by water; and along the new route grain from Winnipeg will reach the steamship after a railway journey of 582 miles, instead of, as at present, a railway journey of either 1,422 or 1,904 miles.

Yet the new line is chiefly important for a reason apart from the reduction in freight and the revolution in trade which it is likely to effect. That line will unlock a new territorial treasury of natural resources, and open to the settler a region (known now as

Keewatin) much larger than the Province of Manitoba. It will, moreover, be the first stage in the development of Northern Canada—those wonderful realms of long days which I am convinced are destined, by reason of their high agricultural potentialities, to strike the imagination of the world with the force of a great geographical revelation.

Here, then, and in certain subsequent chapters of this book, I definitely pass from one phase of my subject to the other. Yet, since forecasts are vain unless supported by facts, I shall make Canada of "To-day" throw light on Canada of "To-morrow."

Things heard and things seen—just a stray fact or two—awakened my curiosity, and I went from end to end of the Dominion in a spirit of inquiry. Calling on all the provincial governments in the West, I pointed my finger to blank spaces on the map and asked: "What do you know about them?" This led to some significant experiences.

In British Columbia came the astonished reply: "Well, of course, there are people up in the Yukon—just here and there—mining. And gold, coal and copper mines are scattered about this province. More than that we know nothing, except that explorers have testified, concerning nearly every region they have visited, that the country is rich in fine timber and minerals. As for possessing any definite knowledge of central and northern British Columbia—why, sir, we still have only the most imperfect and superficial knowledge of this southern part. The other day I was over in Vancouver, and I went on the inaugural trip along a new railway running a few miles out of the city. Many of the leading citizens of Vancouver were in the cars, and there they were exclaiming in astonish-

ment over a beautiful district that they had never dreamt was so near their doors!"

At Edmonton, the minister I interviewed jumped from his seat when he heard my inquiry, and, striding across his office, eagerly unrolled a huge map of his province. "Look!" he cried, as his hand swept over the bulk of the area. "That is all a sealed book to us. We know generally that it has a splendid climate, and that millions upon millions of acres are underlain with coal. But the whole of that country is unsurveyed, and practically the whole of it is unprospected and unexplored. You want to know about that land? Ah! and so do we. The Government wants very much to know about it. No doubt a lot of valuable data is in existence, if only it could be collected and collated. I mean the experiences of isolated missionaries, pioneer settlers and so on. People talk about Alberta as though it were a settled country! I have often seen Edmonton referred to as being in Northern Alberta! So no wonder you are surprised to find the Government with blank minds about half the territory under their authority. Look! The settlement north of Edmonton is still below the middle of the province. The whole of the northern part may be described as a practically unknown country."

It was the same in Saskatchewan and Manitoba—the governments were eager to secure the very information I asked them to impart. But at the four capitals I received hints as to quarters in which reliable knowledge might be looked for. The result was that I interviewed several explorers, besides discovering, at Ottawa, a veritable mine of information about the great north lands. For the Federal Government and its chief geographer (Mr. R. E. Young) had preceded me in

this search for obscure knowledge. A special committee, it seemed, had assembled, interviewed and cross-examined the handful of men who could speak from personal knowledge about the empty spaces on the map of Canada. Their evidence was placed at my disposal; and to that source I am largely indebted for the information in this chapter, and in those dealing with "New Saskatchewan" and "Northern Alberta."

"Yes," said Mr. J. Burr Tyrrell, the well-known mining engineer, who was in the Government Geological Service from 1883 to 1898, "I spent nine or ten years in the country to the west and south-west of Hudson Bay."

"And you think well of agricultural possibilities there?" I asked.

"Undoubtedly," said Mr. Tyrrell. "You may take Canada as a whole, and say that north of the present settled region there is a broad belt of several hundred miles that will be good for farming. It carries immense quantities of valuable timber. Beyond that belt is a great region which will yield valuable minerals."

And now let me reproduce Mr. Tyrrell's specific testimony concerning the region that will be opened up by the Hudson Bay Railway. He indicated a line running north-west from Churchill, and pointed out that the country north of that line is outside the farmer's scope. South of the line there is a belt of from one to two hundred miles in width, which is sparsely wooded, having trees along the banks of streams and in sheltered positions. In this belt there are areas that would support a northern vegetation, but it is not, in his opinion, eminently suited for agriculture, there being but little decomposed soil there except in the valleys. South of that belt is a forest region, about

two hundred miles wide, lying west of the Nelson River and extending along the Churchill River right away to the Mackenzie and Athabasca rivers. It is for the most part excellent agricultural land—as fine as can be found in the North-West.

"Everywhere," said Mr. Tyrrell, "I found abundant evidence of rich vegetation, and wherever agriculture or horticulture had been attempted within the forest belt it had been eminently successful. I have seen growing in that country potatoes—and most excellent ones they were—carrots, turnips, cabbages, cauliflowers and all the ordinary garden produce that grows in Ontario. Indeed, the land there is similar to the Ontario land, and on it can be raised practically everything that can be raised in that province, if we leave the Niagara peninsula out of account. The summer is warm, and there is a good rainfall. The winter does not count, because things do not grow in the winter. A small part of the district is park country, half wooded. The belt is a continuation northward of the settled Saskatchewan country."

In the specified area (through which the greater part of the new railway will pass) it appears that the Indians, when hunting in the spring, plant little patches of potatoes here and there, and return in the autumn to dig them for use in the winter. "On several occasions," said Mr. Tyrrell, "I have gone out and dug a pail of beautiful potatoes from those little Indian gardens buried in the woods. They have received no hoeing, or any other sort of cultivation, from the time of planting to the time of digging."

Mr. Tyrrell has no doubt that the country in question will support quite a thick population; and he mentioned that, south of the forest belt, and north

of Lake Winnipeg (in other words, the region to be traversed by southern sections of the Hudson Bay Railway), "there is another magnificent area, from five to ten thousand square miles in extent, and as fine a country as is to be found in Manitoba or anywhere else. That area extends westward along the Churchill. These lands to the north of Lake Winnipeg are an extension of the same basin as the Manitoba clays."

Let me now call another witness—Mr. A. P. Low, Deputy-Minister of Mines in the Federal Government, and, as an earlier chapter has borne witness, formerly a prominent member of the Geological Survey. In that capacity Mr. Low pursued some explorations in Keewatin, with the result that he is able to make the following contributions to our knowledge of this undeveloped region:

Between Norway House (which is north of Lake Winnipeg) and Hudson Bay tne country is not very elevated, the highest points being probably about 1,000 feet above sea level. For about half the distance to the bay the traveller passes over a rolling plain, the rocks being ancient formations of the Laurentian and Huronian age, while farther on there is a deposit of limestone and sandstone. On the first half of the journey from Norway House to Churchill the country slopes very gently towards the bay, the grade being not more than eight or ten feet to the mile, if it be that. The north-eastern part of the country is practically a plain.

Mr. Low pointed out that considerable areas of swampy land exist. The rivers have thrown up banks, and there is only an occasional break in those banks to serve for drainage. In many places the river banks are from five to ten feet higher than the adjoining land,

which consequently is more or less drowned for a distance often extending back as far as one can walk in a day.

He considers that probably half the country due east from Norway House—say for one hundred miles—would be fit for agriculture. There are, of course, very few settlements in there at present, and the only one Mr. Low visited was a Hudson Bay post at Trout Lake. There he found peas, potatoes and other garden crops growing and looking well. That no appreciable trouble occurred from summer frosts was shown by the condition of the green peas. Apparently, indeed, the climate is quite favourable for hardy crops. The soil areas fit for agriculture are fairly large, rocky hills occurring only at intervals; and he has no doubt that quite a large region will be available for future settlement.

With regard to the plain south-east of Nelson River, Mr. Low said it appears to be muskeg and spruce land rather than a hay area. He does not regard that low-lying country around Hudson Bay as of first-class agricultural value in its present form; but it shows a fair amount of vegetable growth, the subsoil is largely clay, and with some drainage, he thinks, a great deal of it will be good for farming.

Another influential witness is Mr. D. B. Dowling, of the Geological Survey. Speaking from personal knowledge of the region to be traversed by the railroad, Mr. Dowling threw light on the strips of raised land running beside the rivers. He said they represent a mile, or less than a mile, of well-made country covered by fine forests. "The centre portion between the streams," he added, "is now exactly as it was when it first came from the sea, except that it has some

vegetation on it which it had not at that time. All it needs is drainage. The soil and climate are good."

On this crucial matter of farming prospects in the country to be opened up, the personal experience of two other members of the Geological Survey is available. I refer to Mr. Owen O'Sullivan and Mr. William McInnes. Mr. O'Sullivan, in 1904, was engaged in studying the west coast of James Bay, and in the summer of 1906 he started from Split Lake, on the Nelson, and went down the Little Churchill to the Big Churchill. The land about Big Lake, he said, is a good loamy soil, but from Big Lake to the Big Churchill the country is rocky and swampy, though with a good deal of rich clay loam in places. Mr. O'Sullivan was able to testify that very tasty potatoes are grown at Split Lake. In the month of June he ate some that had been grown during the previous year. He saw turnips, cabbage and lettuce growing, and they appeared to be very good. The potatoes were taken up on August 23rd and 25th. Some left in the ground had the tops touched pretty severely by frost in September. On being asked about the land near the head of Lake Winnipeg, Mr. O'Sullivan said he never tasted better potatoes than some that were grown at Cross Lake. Concerning a point far to the north of the terminus of the new line, this explorer had an interesting piece of information to impart. He saw lettuce and turnips growing at Churchill, and he is of opinion that potatoes, with proper attention, would mature there.

Special interest attaches to the experience of Mr. McInnes, because he zig-zagged across the actual ground to be crossed by the first half of the Hudson Bay Railway. The whole region from Split Lake to

the Saskatchewan is, he said, a clay-covered country. In traversing that country he went by way of the Burntwood River and returned by way of the Grassy River, making a number of excursions between those two boundaries. After leaving Split Lake, he found the clay-covered country absolutely free from boulders and gravel. Even on the shores of the lakes, unless a height of about 800 feet were reached, no gravel bars were met with. "There is absolutely nothing to interfere with the cultivation of the soil," testified Mr. McInnes. "The country has been repeatedly burnt over, and it is covered by a very open forest. Grasses grow fairly luxuriantly there, the blue joint grass and a wild rye being the prevailing species. I understand that these are a good meadow growth and make excellent fodder. While there in June, July and August I saw grass growing to a height of from eighteen inches to two feet." Asked to indicate the extent of the country he was describing, Mr. McInnes computed it at about 10,000 square miles, adding that he did not mean to say the whole of that area was good agricultural land.

This explorer's testimony will enable the reader, without consulting a map, to have a definite idea of the nature of the land along the new route. The Pas, on the Saskatchewan River, to the north-west of Lake Winnipegosis, may be taken as the starting-point of the line, since a railway to that place has for some time been constructed as part of the Canadian Northern system. Setting out from the Pas, and proceeding towards Nelson, Mr. McInnes passed through about 140 miles of country underlain by the flat limestone of northern Manitoba. He walked for miles over bare hills that carried hardly any soil. Then he entered

the clay belt previously mentioned. The railway, he explained, would traverse about 170 miles of those clay lands before it reached Split Lake.

Mr. McInnes pointed out that on the Nelson River wheat has been grown successfully at Norway House and at Cross Lake. The Hudson Bay people do not raise wheat at their posts nowadays, but formerly they grew it and ground it in hand-mills. He saw potatoes that had been produced fifty miles north of the Pas, and they were great showy specimens such as one sees at exhibitions. On July 11th, when Mr. McInnes arrived at Nelson, potatoes planted by the Indians had tops eleven inches high and almost ready to flower. When he returned to the Pas, on September 6th, he found the Indian corn there was very well headed out, with large, fine ears quite ready for table use. He stayed at the Pas until September 29th, by which time the locality had not been visited by frost. "With eighteen hours of daylight, and no frost in the summer," Mr. McInnes said, "vegetation is rapid; and in a country where you can grow Indian corn, you can grow practically anything."

As the reader will probably have gathered, within the large territory to be traversed by the line there are four old posts at which missionaries and Hudson Bay people would be likely to have had instructive agricultural experience. I refer to Norway House, which, as already mentioned, lies to the north of Lake Winnipeg; Cross Lake post, which is north of Norway House; Cumberland House, which is north-west of the Pas; and Nelson House, which is east of the new line, at a point rather less than midway between the Pas and Port Nelson. Sir John Richardson bore witness in 1820 that wheat was successfully raised at

Cumberland House. Speaking of Nelson House, the Rev. J. Semmens has said: "In my experience wheat is not a sure crop there. All depends upon the season. Oats and barley will do well any time." The evidence of the Rev. Dr. John McDougall is also available. He said: "The district in which are situated Norway House, Cross Lake, Oxford House, Island Lake, Nelson House and Split Lake covers a wide area, and at each of these places garden vegetables and grain for personal requirements have been successfully grown for a number of years. Summer frosts are practically unknown, and the germination of vegetation, owing to the long hours of sunshine, is exceedingly rapid."

That must conclude my summary of evidence tending to show that farming will flourish in the new region to be opened up. On other vital points I shall put some of the foregoing authorities again into the witness-box.

There is general agreement that the country possesses considerable timber wealth. Speaking of the region between Norway House and Hudson Bay, Mr. Low said the forests, as in so many parts of Canada, have been largely destroyed by fire, but around some of the large lakes, on their islands, and in other places a fine growth of timber is found, with white and black spruce pine, aspen poplar, and white birch running to eighteen inches in diameter. This is what Mr. Dowling said: "There is a strip all along the front of the bay which has no trees. Back in the interior there is timber. Along the river valleys the trees are always well grown." Mr. O'Sullivan explained that the spruce and poplars in the valleys are sometimes twenty inches in diameter, and that the cottonwood grows to about fourteen inches in diameter. Speaking of the

country generally, Mr. McInnes said there is a great deal of timber that would be fit for wood-pulp.

As to the country's wealth of fish and game, the testimony is less qualified. Mr. Low mentioned that the inland waters of Keewatin would yield a tolerable abundance of whitefish, lake trout and other species, and he said that in Hudson Bay the Indians net a number of whitefish and ordinary river trout which have developed sea-going habits. From the same source we learn that along the east and north-west shores of Hudson Bay the excellent and beautifully coloured Arctic salmon is found. Mr. Low mentioned that black, silver and grey foxes are taken in the northern part of Keewatin, and they, with the beaver, the otter and the marten represent the principal furs of the country.

From Mr. Dowling we hear that the rivers of Keewatin abound with perch, dory and jackfish, while some of the larger streams contain sturgeon. He saw five bears, and testified that it is a great country for foxes, "which seem to be able to live on the sea-birds and mice." Mr. O'Sullivan, after mentioning that sturgeon occur all through the Little Churchill River, and that some of them weigh forty pounds, added: "At Churchill you get the porpoise, which is quite an item when you have to keep dogs for the winter."

Mr. McInnes found two companies turning to commercial account the fish of the lakes occurring within a convenient distance from the Saskatchewan. "Going out," he said, "our party was short of pork and stopped to get supplies. In one night's fishing the Indians caught so many sturgeon that we had enough to carry us for 150 miles, to the Hudson Bay post. One of the sturgeon was three feet long." Ducks, he said, were

fairly plentiful, and so were wild geese, "which live on all sorts of little shell-fish, water-beetles and crabs, besides the seeds of many water plants other than wild rice. I shot mallards in that country," he went on to say, "and their crops were full of little bivalve shells about the size of my nail." This was Mr. Tyrrell's impressive testimony: "Some of the small, shallower lakes contain whitefish in enormous numbers. While paddling along in a canoe I have seen the fins of thousands sticking up out of the water. . . . There are all the fish the lakes will hold—they are as full as the water can supply food for them." Mr. Tyrrell came across great herds of cariboo in the far north.

And now, through the eyes of those who have been there, we will glance at the mineral possibilities of the new country. Mr. Low pointed out that between Chesterfield and Fullerton there are several fairly good deposits of iron pyrites, and that some of these contain small deposits of gold, which, he mentioned, was also found by Dr. Wright somewhere in Whitcher Inlet. On the same authority we learn that "the general character of the southern part of Keewatin as regards mineral resources is good." Mr. Dowling, however, inclined to the opinion that the country is not rich in minerals. But incidentally he observed: "There is iron ore, and the possibility of gold and silver ore, and also copper ores in the Grass River district. There is no asbestos. With reference to mica, it can be found all over the country, but in small pieces." Mr. McInnes explained that, north of the Saskatchewan, he crossed forty miles of limestone that would be excellent for building purposes. On the Upper Winisk River he discovered a large area of so-called norite rock. That is the rock in which the nickel of Sudbury occurs.

He examined samples under the microscope, and said the Keewatin formation is not to be distinguished from the Ontario formation. Mr. McInnes also found—this time at Cross Lake—an "area of Keewatin rocks, cut by intrusive granite, of the same character as the photogene of Western Ontario, which is almost always gold-bearing." Mr. Tyrrell recognises great possibilities in the rocks of Keewatin, and he looks for "a large development at some time" in the copper industry between Chesterfield Inlet and the Copper Mine River. He said that "the Eskimos pick up native copper and make their implements from it."

That, one would think, is a very valuable clue. Mr. Tyrrell showed me a large specimen of native copper that he had obtained from an Eskimo hunter. This eminent geologist saw gold and copper in rocks near Chesterfield Inlet, and he has "every confidence" that those rocks will produce workable ores.

And now I will finally recall the foregoing witnesses, in order that they may say what opinions they formed with reference to the climate of Keewatin. Mr. Low considered "the summer as equal to that of Saskatchewan." "At Churchill," said Mr. Dowling, "we had winds from the south-west practically all through the summer, and that made it very warm; but there were two days when the wind came from the north, and people wanted their overcoats at once." From Mr. McInnes came the statement that "the country averages from four to five degrees in the summer months higher temperature than is found at the same latitude farther west."

Speaking of the arable belt that is two hundred miles wide, Mr. Tyrrell said there is little or no summer frost there. At Nelson, gardening commences, he

understood, at the end of May, and frost does not appear until about September 20th. He went on to make the following useful statement: "People must not suppose that vegetation is affected by the isothermal line, which merely connects points that have the same annual mean temperature. As things do not grow in the winter, the winter temperature has nothing to do with farming possibilities. The summer temperature is the only temperature that counts for growth in the northern country. As between two places in different latitudes, you have to take into consideration the length of the day and the amount of sunlight. Where the days have eighteen hours' sun a plant will grow faster than where the days have only fourteen hours' sun." And again: "The large body of water in Hudson Bay and James Bay has an equalising effect on the winter temperature of the surrounding country, tending to make the summers cooler and the winters milder."

And so, I think, the evidence is abundant that, when trains run between Winnipeg and Hudson Bay, one section of the Great North Lands, emerging from the mists of obscurity and misapprehension, will take its place among the most productive and habitable regions of the British Empire.

CHAPTER XI

EXPERIENCES OF IMMIGRANTS

READERS of this book will, I hope, include many persons who think of emigrating to Canada; and fain would I answer the question uppermost in their minds. "What experiences await us there?" they will be anxious to learn.

I have interviewed many settlers in the various provinces, and their testimony admits of being focused into three statements of well-nigh universal application —of application, indeed, to all save persons who are exceptionally lucky or exceptionally stupid. These three statements are: (1) Life in Canada involves work, and hard work. (2) The first year, and perhaps the first two years, will be a time of stress and of struggling with difficulties. (3) Then there comes the "turning of the corner," with assured prosperity to follow as the result of continued effort. Nothing, indeed, is more sure than that, in Canada, work commands an ample reward.

But my three generalities, after all, leave all the details unstated; and I cannot fill in those details more convincingly than by reproducing the actual personal experiences, as chronicled almost from day to day, of a typical English family who settled in Canada. But the story of what befell Mr. and Mrs. Rendall must be

preceded by a word of explanation. They were members of the large party who, in the spring of 1903, emigrated under the auspices of the Rev. I. M. Barr—a party whose affairs were destined to attract some attention from the English Press by reason of special difficulties involved in an isolated location. Nowadays plenty of free land can be found within twenty miles of a railway; but the Barr colonists were destined to begin their new lives in a situation far more remote from means of quick transportation. Thus, if Mr. and Mrs. Rendall were typical English immigrants, their early experiences give an exaggerated impression of what the average settler has to expect.

"With my family," Mr. Rendall wrote, "I left England on April 8th, 1903, on the *Lake Simcoe,* as I was unable to settle up my affairs in time to join the Barr party on the *Manitoba.* I may say that I had been a farmer in the Old Country all my life. The place I rented in Devonshire had been farmed by my forefathers for over two hundred years. I was paying rent at the rate of over £2 an acre, in addition to rates, tithe, taxes, and wages. A crisis came. The landlord would not reduce the rent or do any repairs to the dwelling-house or out-buildings, all of which were falling into ruin; so I determined to throw up the life of slaving for others and strike for independence in Canada.

"Having obtained from head-quarters all necessary information respecting free-grant lands in the North-West, I applied for a homestead for myself, and another for one of my men, Barnes, who had determined to throw in his lot with mine. Then, with my wife and two children (aged two and four), I left the Old Country, with many a heartache at parting, yet with

a strong determination to face all difficulties, and to succeed in the end.

"We left Liverpool on April 8th, and arrived at St. John's on April 13th," records the husband succinctly. In the lady's diary the voyage received more attention. "A gentleman slipped over the stairs leading to the cabin," she notes, "and broke his leg. There was a birth on board; and a foreigner in the steerage cut his throat, and is not expected to live. In addition to all this, they have discovered no less than twenty stowaways."

This Devonshire family lost no time in proceeding by rail to Saskatoon, where they found the other Barr colonists in a large temporary encampment. "I made my own independent arrangements," Mr. Rendall wrote, "and took a room for my wife and children. We reached Saskatoon on April 15th, and stayed there till April 29th. My first business was to purchase a wagon and pair of horses with harness. This meant spending $508, a stiff outlay, but a necessary one. I also bought a camp stove, a plough, harrows, and a good supply of nails and tools. Having packed up our traps, we set off to drive to Battleford. We had duly provisioned ourselves for the journey, which was fortunate, as, contrary to what we had been told, it proved impossible to get anything on the road—a condition of affairs that caused much misery and privation to many of the poor colonists.

"My experience of horse-driving in the Old Country stood me in good stead, and in spite of all difficulties, including inclement weather and rough country, we reached Battleford safe and sound, without one mishap, in four and a half days. This was considered very good, and I had a heavy load.

"We remained at Battleford from May 2nd to May 4th, when we resumed our progress to the promised land. This part of the journey was the most trying, with the road terribly rough and the weather bitter. Had it not been for the Government tents, which were set up at appointed stopping-places along the route, many must have died from cold and hunger. My wife and little girl felt the effects of exposure, and by the time we reached the settlement both were thoroughly ill. In fact, we were all worn out from our long journey and the want of rest.

"My first inquiry was for a doctor, who quickly came to our assistance, and of whose kindness I cannot speak too highly. With care, my wife and little one soon recovered. Then my man went down with threatened pneumonia, though the prompt attentions of Dr. Amos saved him from a serious illness."

Here it will be interesting to recapitulate, from the lady's point of view, the experiences just briefly narrated.

Under date Friday, April 24th, I read in her diary: "We have now been in Saskatoon since Wednesday evening, and are busy getting all in readiness to trek up to the settlement. We have overtaken Mr. Barr and his party. They are in a huge camp, but the children and I and my husband are in a room. Yesterday I was greatly pleased to see my husband and our fellow-traveller and friend, Mr. Young, come in with smiling faces to say they had secured a splendid pair of horses and a wagon. These are ours, as Mr. Young is not purchasing yet. The children and I went in the afternoon to see our new possessions. The horses are really beautiful animals, strong, powerful, good-looking, in fine condition, and well educated. There is

a large covered hood to the wagon, so it will serve as a house for a while. The next bit of good news is that we have had our land allotted to us. . . .

"Sunday, May 2nd. Four and a half days' trekking through most perilous country! Some of the dykes we had to pass over were simply awful. Very few got through the journey without serious loss of baggage and horses. I have a fair amount of courage, but it has been taxed to the uttermost during the past few days. The children have been most plucky. The natives here think my husband and Barnes have done splendidly to bring us through so well and free of all mishaps. It has been bitterly cold camping out some nights—two degrees below freezing. Still, we are alive, and contemplate continuing our journey to the settlement to-morrow—another seventy miles. We have our camp stove, and we start and end our day with a good foundation of porridge, which we find a splendid thing to keep us warm and satisfied. This morning I rushed first thing to the post office, but experienced a bitter disappointment. Not one letter for us! Others with smiling faces were eagerly devouring their home news. I must say I came away feeling very sad and lonely. It is just a month since we left home.

"On the journey my husband fired his first shot on Canadian soil. He killed a fine duck, and afterwards, three prairie chickens. We are greatly looking forward to a nice savoury dinner to-day—the first hot meal for a long time. We cannot feel too thankful that we are all safe so far. To others there have been many mishaps, and no wonder—the bogs, ravines, and gullies we passed were really fearful. Our good horses have done splendidly. We are quite enjoying the rest to-day. The vastness of this country is wonderful. Although

we have passed through so much already, our courage is still undaunted. . . .

"On leaving Battleford we had a ninety-mile journey through most awful country. It shook us all to pieces, what with driving through thick scrub and charging across great streams and ravines. Simply perished with cold and hunger, we reached the Government tents at our journey's end. We all felt weary, worn, and sad. My little Doris was taken ill the day before we arrived, and my husband's first care, on reaching Mr. Barr's camp, was to seek out the doctor. She had a temperature of 104; but, thanks to poultices and medical care, she soon pulled round. Then Barnes was taken ill; and I suppose all this worry and anxiety proved the last straw as far as I was concerned, for I was the next to collapse, with a bad chill and bronchitis, together with an abscess on my face, all of which combined to make me feel very low and out of sorts."

So much for the first ordeal, to which this family and their fellow-colonists need not have been subjected in 1903. That long trek, accomplished by makeshift means of their own providing, put them on a sort of post-dated equality with settlers who arrived in pre-railway days. Indeed, save that the country was now free from Indian savages and belligerent fur-traders, Mr. and Mrs. Rendall and their two little children might have been living a hundred years ago, and traversing the North-West in one of Lord Selkirk's parties of pioneers.

But the journey was, after all, of minor moment. Dumped down in the wilderness, isolated from civilisation, with no road or river service to connect them with the populated world, those English families had now somehow to strike root as a self-supporting community.

Two hundred miles from a railway! Truly it was a formidable handicap.

But I will resume the personal story: "We arrived at our destination," the husband recorded, "on May 10th, and remained in camp until May 15th. Prairie fires raged around on all sides, giving rise to serious anxiety. At one time, for the safety of the whole camp, it was necessary to summon out all the men, horses, and ploughs that were available."

"When we reached Mr. Barr's camp," the lady stated, "my husband went to survey the section of land allotted to him; but he was not at all satisfied, and would have nothing to do with it. So Mr. Barr went with him to look at a different section, which resulted most happily for my husband. He is perfectly satisfied with his new location, and considers he is the proud possessor of as fine a tract of land as is possible to be procured. As I now sit writing, I can look out at my tent door and see him quite happy doing his first bit of ploughing on his own soil. There is no doubt it is most beautiful land. We have plenty of wood and water, which is a great boon and much to be thankful for. Our friend and travelling companion, Mr. Young, has the adjoining land, which is just as good as ours. We are only half an hour's drive from the stores in Mr. Barr's camp, half a mile from the prospective railway station, and only a few minutes' walk from the school site."

From Mr. Rendall's account of the initial efforts we learn one or two additional facts: "On May 15th," he wrote, "we pitched our tents at last on our own domain, with a feeling of thankfulness that journeying was over and the goal reached at last. I started the very next day to plough, and in less than a week had

ploughed and tilled three acres of oats, and, by the following week, an acre and a half of barley and half an acre of potatoes. At the time of writing (July 22nd) everything is looking splendid considering late sowing. I am much pleased with my land, which is good soil and easy to plough." He criticised the conditions under which the colonists were existing, and added: "I cannot speak too highly in praise of the valuable and kindly assistance of the Government officials, who have spared no trouble in smoothing away our difficulties so far as they are able."

Going back to May, we read in the lady's diary: "I think the country all round here will be very pretty in a short while. We are now hunting out a nice spot for our little house, which we are anxious to get up as soon as possible. There is a gentleman in Mr. Barr's camp who thinks of returning home. He has the plan of a four-room bungalow, and the timber all complete for building it. If he does go back, he will sell it outright to my husband; but the timber will have to be fetched from Fort Pitt, twenty-five miles away. Barnes goes to Battleford on Wednesday to fetch the rest of our luggage, ploughs and harrows, and the cooking-stove. There are plenty of prairie chickens and wild duck all over the estate, and my husband's gun keeps us supplied. Yesterday and to-day we have thoroughly enjoyed a delicious dinner of prairie chicken, beans, and potatoes. The beans are like little white peas, and are very good. We are getting some vegetable seed from Battleford to start our kitchen garden as soon as possible. I shall be so thankful when the warmer weather sets in. I can quite understand the attraction of camping then, but under present circumstances it has very few charms; and, what with the bitter cold and the hard

ground, we do not get much refreshing rest. Still, despite all the hardships, it is certainly a glorious feeling to be able to look around on our very own property and feel that each day's work is for future benefit. No landlord, and no rent to pay! And no taxes! That does indeed compensate for a great deal."

On June 4th Mrs. Rendall had very sad tidings to record: "Our poor friend and neighbour, Mr. Young, took a chill a fortnight ago. He seemed so unwell when my husband went up to see him in his own tent that I suggested he should be driven down to us, and put in Barnes's vacant tent, where we could look after him. This was done, and we sent for the camp doctor, who said it was a serious case. On Friday and Saturday Mr. Young became worse and was very delirious. There happened to be an experienced male nurse in camp, and he came out to remain at night. On Saturday I was alone with the poor fellow while my husband was driving the doctor back to camp. He told me he knew he was going to die, and he asked me to note down his wishes and write and cable to his wife. He wished my husband to take charge of everything he had till such time as we should receive instructions from his family.

"He passed away at 3.30 a.m. on Saturday, May 24th, after only four days' illness. It was an awful blow to us. We had been such good friends, and he and my husband were so much together. He was buried the same evening, at seven, on his own ground, the doctor and Mr. Lloyd making all arrangements. We cabled the poor wife in Manchester, and I wrote her a long letter giving all details, and we are now awaiting instructions from her. They were coming out this month. There are two sons—eighteen and twenty

THRESHING BY MACHINERY IN THE PRAIRIE PROVINCES

—and two daughters—sixteen and thirteen. We have the satisfaction of knowing we did everything we could to save him. It all seems like a dream."

On a later date the lady wrote: "We are having glorious weather, and as one looks around on the lovely green grass, and the bushes in bright foliage, it is difficult to realise that the ground was so recently covered with snow. My husband's oats are already well up and are looking splendid. About a week ago we managed to buy a cow and a calf, and I feel quite proud that we not only have plenty of milk for ourselves, but are able to supply a neighbour with a quart a day. Yesterday we all thoroughly enjoyed a lovely cup of cream for tea.

"Next Monday Barnes goes off to Onion Lake, Fort Pitt, to fetch the lumber for our bungalow. We have chosen the site. . . . As to the colony, Mr. Barr is pretty well out of it now, and in his place we have the Rev. Mr. Lloyd, a splendid man."

On August 6th the lady with deep thankfulness recorded that their bungalow, christened "Doris Court," was near completion.

"To-night," she wrote, "we contemplate sleeping, for the first time for four months, within the shelter of four walls. July is the wet month here, and it is easy to imagine the delights of being aroused from your sleep by the rain trickling on you as you lie in your tent. . . .

"Since I wrote the above we have removed into our very own domicile, and right proud we feel to look around, even though at present the boards are bare. From one window I can see our lovely oats and barley looking splendid. From another window I see the master of Doris Court ploughing away for dear life

with his fine pair of horses. Each acre ploughed means a better prospect for the coming year.

"Doris Court measures 30 feet by 30, and contains five rooms, besides an attic which runs the full length of the house and can be used as a bedroom, as we have had it nicely floored and boarded. There are also two very large cellars in which we can store all necessary provisions for the winter. Everyone who sees our house is of the same opinion, viz., that it is quite the best home in the colony. There will be a veranda four or five feet wide round three sides of the house, and that will be lovely in the summer. We are going to have a fine garden, not being stinted for ground, and we hope in the spring to get some fruit and other trees from the experimental farm. There is a great charm and fascination in planning it all out, knowing it is our own property. That fact compensates us for all the hardships we have passed through.

"We have gone to more expense over our house than we intended in the first instance; but so many persons will want putting up for the winter that we feel it will repay us to have extra room. Already we have had a lot of applications, which we have under consideration. Our bungalow will be warmed throughout by means of pipes from the kitchen stove, and from a heating stove which is placed in the octagonal hall. We burn nothing but wood. The fires have to be kept going night and day during the winter, and we have to put up double windows, viz., outside frames, which can be removed in the summer. The wild flowers are very lovely, and the small single sunflower is just now in abundance all over our land. There are also gaillardias, besides a kind of lily of the valley and a red tiger lily."

The colony had a terrible experience which the lady thus vividly described: "October 21st. Yesterday was a day never to be forgotten. For nearly a week we have been watching several huge prairie fires raging in the distance, for we have feared that a change of wind might bring a heavy disaster upon us. The night before last was an anxious one, with the terrible circle of fire gradually closing around us. The general opinion was that we were safe for the night, but I could not sleep. Next morning our worst fears were realised, and we knew that a few hours would decide our fate. The only safeguard against prairie fires is a broad belt of ploughing all round your homestead. This my husband had done, with the exception of one side, which, alas! was the very side towards which the fire was sweeping with awful rapidity. Needless to say, the plough was soon at work, and it was literally ploughing for dear life. Every available tub was filled with water. Sacks were collected to be in readiness for beating out the flames when the time should come.

"Mr. Rendall, Barnes, and another man who is working for us were all on the alert, watching with intense eagerness all the different points. Meanwhile within the house I, together with Mrs. H., who is boarding with us for the winter, and Mrs. B., who nursed me when my little girl was born, stood gazing out of the window. Each of us had a baby in our arms, and each also had two other children to look after. So in all we mustered nine little ones, each under six years of age. Our young flock fortunately were not able to realise the deadly peril we were in, and we had to keep on rounding them up in readiness for hasty flight.

"I collected a few little valuables, and looked around with a very heavy heart, wondering what would become

of us if in an hour or two we should be homeless. At last we could stand still no longer; so we three women rushed out, and, filling our aprons with the clay and soil dug up from the foundations, we scattered it all over the ground around the house. The wind was blowing a hurricane, bringing, or rather driving, the fire straight on to us. The awful roar of the flames was enough to make the bravest shudder, and the smoke and smell were suffocating. My husband continued ploughing until absolutely compelled to stop owing to the heat and smoke. Our two men meanwhile drenched the roof with water; then, arming themselves with wet sacks, they hurried to the weakest points to try and prevent the flames jumping the fire-guard, which was only 150 yards off the house all round. We could do nothing more. We could only wait with bated breath.

"At last came the joyful cry 'Safe!' from the western side. But the danger was not yet over, for on the north-west we were again threatened, and it was there the horses had been placed for safety. All hands had to fly round to meet the enemy at the fresh point of attack, and after a hard fight the dreaded foe, thanks to cool heads and strong arms, was kept at bay. At the end of a short time of awful suspense and anxiety, my husband came back to us with the welcome assurance, 'All danger over! Safe for another year!' We were too overjoyed for words, and after the dreadful strain of so many hours you may pretty well guess what the reaction was like. Mr. Rendall was literally fagged out, but when we had had a little rest and refreshment we all felt better.

"Our loss was only four tons of hay, but many of our neighbours lost all their hayricks. The fire started by the Vermilion River, and was raging for days before

it reached us and swept on towards Battleford. There is no doubt whatever that our fire-guard in a great measure saved the town site.

"Apart from the horror of it, that fire was a most wonderful sight. Of course, on the prairie you can see for an enormous distance, and for thirty or forty miles there was nothing but flames. How thankful we were the fire reached us in the morning and not at night!"

When next the diarist took up her pen, it was to record interesting domestic details: "We muster fifteen at present—quite a big family to cater and cook for. My little ones are quite happy, the Canadian baby being especially bonny, and thriving splendidly. The town site is all surveyed, and the Government has decided to grant a plot to every colonist who cares to apply for it. Mr. Rendall, Barnes, and I have each got one, and we intend erecting a little store of our own for the disposal of our dairy produce. We are hoping to get two or three more cows soon. Everyone likes our butter, made in the old Devonshire fashion. I have been for a drive to-day, and the town is growing very, very fast, dozens of little shacks springing up all round. There are two large general stores, two restaurants, the post office, a butcher's shop, and a blacksmith's, all within twenty minutes' walk of Doris Court."

On December 10th Mrs. Rendall wrote: "Everything is going ahead now with amazing rapidity. We have been fortunate in having most glorious weather—continuous sunshine from day to day and hard frost at night. Our clergyman, Mr. Lloyd, is a very musical man, and every Wednesday holds a choir practice at his own house. The first hour is devoted to music for the following Sunday service, after which we have

secular quartets, trios, duets, and solos—all the best music he can muster. He has now formed a musical union. I need scarcely say I have joined, and I thoroughly enjoy the practices, they are so splendidly conducted. We really have a very fine choir. Every Thursday evening there is either a concert or a debate on some popular and instructive topic. It has been decided to erect a structure which for the time being will serve as a church, a school, and a recreation-room. Everyone is giving a log (it is, of course, to be built of logs), and the name of each donor is to be engraved thereon by his or her own hand. All the labour of erecting the building is to be done voluntarily, different persons having promised one or two days', or in some cases a week's, work.

"Progress is indeed remarkable. With regard to our choral union, the idea is for all the places round about, such as Battleford and Onion Lake, to form branches and practise the same music, so that from time to time we can have a meeting of the massed choir. Our choir has already been invited to Onion Lake, which is thirty-six miles away. The whole party is to go in sleighs, of which the colony now has a supply. We use them with our wagon-boxes. It is a delightful sensation to be gliding over the snow, which is not soft as in England, but hard and crisp.

"Everyone is in great excitement just now, because we have to elect an overseer (the same as our English mayor), and canvassing is going on pretty smartly. So, with one thing and another, we are quite busy. The little ones are all well, happy, and growing very rapidly. My wee Canadian is the happiest baby I have ever seen. Mr. Rendall has just bought a piece of land, consisting of 320 acres, adjoining our homestead.

When the railway comes, that land will be very valuable. We have bought a one-year-old calf for $11, with a ton of hay thrown in."

After giving an account of enjoyable social gatherings and frolics at Christmas and New Year's Eve, our chronicler added: "We are most amused at the reports that reach us from England as to the terrible plight we are in, even to the verge of starvation! As a matter of fact we are quite happy and contented, and very much better off in every way than we were in England. As for food, we certainly live as well as ever we did. There are now two butchers in the town. Our meat is delivered at the door, and is of the very best quality. Certainly we have had difficulties to surmount and hardships to endure, but we quite expected them when we left England; and at that time we treasured up a reserve fund of determination and pluck which stood us in good stead when the need came. I would never advise anyone to come out here who is the least afraid of work—they are better off at home. There is plenty of room to breathe in this country, and if the work is hard, the freedom—which is the inevitable attribute of the life here—makes one far less susceptible to physical fatigue than one was in the old country, where there is a feeling of weighty oppression to handicap one's energies. Here one feels that each week's work is a step onwards, while ten years' hard toil in Devonshire brought nothing but disappointment and additional anxiety.

"There is no doubt whatever that Lloydminster bids fair to become a very important centre. Its growth week by week is marvellous. The Government are now erecting a large immigration hall in anticipation of the arrival of new-comers in the spring. Meetings are being held now to discuss and perfect arrangements for

receiving expected friends and families and ensure their safe conduct right up to the colony.

"So far we have passed through the winter splendidly, and up to the time of writing (January 19th) we have brilliant sunshine from one week's end to another. Our bungalow is kept beautifully warm. We have a good supply of wood from our own land, and so the price of coal is an item over which we have no need to worry. We have to pay very dearly for flour—$4½ for 100 lb. It is of course freightage that makes things dear. It is expected that the railway will be here and working in a year from now, and then everything will be cheaper. The telegraph will be in working order in a few weeks' time. We have two large general stores, a drug store, and a resident doctor, with a hospital in view. Our choral union now numbers 120 members, and a rifle corps is being formed with 160 names enrolled. At the time of writing there are twenty-eight degrees of frost, and those who have been outside say it is a bit nippy. If we do not take proper precautions to protect our noses and ears, we are liable to get them frost-bitten.

"The land here is of splendid quality and fit to grow anything, being specially adapted for mixed farming. And when I remember all these things, I cannot help smiling to think of those in the old country who have been commiserating our lot. They have far greater need for pity than we, for while they are still plodding and hibernating, we are on the progressive, and are probably making greater headway in twelve months than they in as many years. For Canada is nothing if not a go-ahead country."

From this point, probably because of superior claims upon her attention, Mrs. Rendall allowed a long

break to occur in her instructive record of a settler's experiences. When, several months later, she resumed the narrative, it was to say: "Much has happened since I last wrote, and I hardly know where to begin. Lloydminster is quite a little town. The railway is here, and the station is a pretty addition to our buildings. Little did I think that the whistle of an engine would ever sound so sweet! The passenger service is not properly organised yet, and the line is still in the hands of the construction party. But as soon as the line is entirely completed, and it is handed over to the Canadian Northern Railway Company, we shall have a regular service.

"For the past two years we have lived in comparative isolation, sometimes being left for three weeks together without the slightest notion of what was going on in the outside world. We were completely at the mercy of the weather for news and provisions, all having to come by road from Saskatoon; and when they did come, the price of the commonest necessaries was enough to make the pluckiest feel occasionally downhearted. 'It will be different when we have the railway,' became a stock phrase. But it was weary waiting, and many of us had almost lost hope, when one day we heard that the rails had been laid within two miles of Lloydminster. Less than a week later, the first train arrived. Since then there has been quite a revolution in the price of everything. Flour, for which we had paid $4½ to $5 per 100 lb., is now $2.80, top price; and the cost of all other provisions is decreasing in proportion. Lumber, too, is coming down in price.

"Town lots have been on the market and bought at high values. Everyone is now to build lumber houses

instead of log shacks. Bricks, too, are being extensively used for buildings. What a transformation! When we arrived in May, 1903, about a dozen tents were all there was to see on the bare prairie. Now three large hotels are in course of erection, there are stores of all kinds, and even a branch of the Canadian Bank of Commerce is going up. There is also a printing office, from which is issued weekly our newsy little paper, *The Lloydminster Times*.

"This year we have had fifty acres under cultivation. Our grain is not threshed so far, as the threshing outfit has not been our way yet. The general yield of oats is about 50 bushels to 60 bushels per acre—of wheat, 25 bushels. We have two acres of potatoes—a splendid crop, though early frost spoilt half before they could be got out of the ground. From 4 lb. of seed from the experimental farm, Mr. Rendall had a yield of 136 lb., many of the potatoes weighing over 20 oz. Our garden produce was splendid. We picked several hundredweight of peas, and disposed of them in the town, one restaurant taking nearly all we could supply. We have put on a large addition to our house in the shape of a substantial log building, 14 feet by 18 feet, which will serve as a granary in winter and an extra kitchen in the summer. Mr. Rendall is now completing a fine log stable, 30 feet by 15 feet. We have some very good cows, and our milk is now disposed of right away and fetched from the door, so that we have no bother."

* * * * *

Last autumn I visited Mr. and Mrs. Rendall and their fifteen hundred neighbours—a healthy, happy, and prosperous community. The town of Lloydminster,

with its large and handsome banks, hotels, churches, schools, and hospital, was a visible part of the abundant wealth which the Barr colonists, by growing grain on 27,000 acres of hitherto useless prairie, had brought into being—and all in less than eight years!

CHAPTER XII

WINNIPEG AND THE CENTENARY

For over a century, as I have already pointed out, Western Canada formed part of a vast theatre in which the fur traders enacted their stirring, if somewhat squalid, drama. Of the several men who figured prominently in the history of that period, there was one whose memory should be revered by Canadians of To-day and To-morrow.

Philanthropy knows no higher work than to rescue capable and industrious men from a country where they cannot support their families, and emigrate them to a country where they can. In that work—which is so largely a modern development rendered possible by modern conditions—Lord Selkirk was a remarkable pioneer. He was a seer, born far ahead of his times. One hundred years ago he saw the possibility of settling Western Canada. In an age that knew nothing of steamships and railroads, he had a prevision of farming on the prairie. Had his aspirations remained an unrealised dream, we should have sufficient occasion to honour the memory of a prophet. But that kind-hearted and resolute Scotsman realised his dream. Encountering difficulty after difficulty, he overcame them. He found his time of day sadly out of tune with a scheme for putting the landless man on the manless land, but he achieved that desirable end. It is, indeed, to the

everlasting credit of Lord Selkirk that he successfully tackled a twentieth-century job at the dawn of the nineteenth century. While the warlike traders were losing their tempers and their lives over the business of collecting pelts, the unselfish nobleman was putting in some quiet, steady work on behalf of humanity.

After the terrible Napoleonic wars, great destitution occurred among the humbler classes in Great Britain, and specially in the Highlands of Scotland. Lord Selkirk's aim was to benefit his needy fellow-countrymen.

In June, 1811, three ships left the Thames to call at Stornoway, in the Hebrides, for the first party of settlers bound for Central Canada. The emigrants, as they went on board, were presented with a lying pamphlet describing their destination as a Polar region infested with hostile Indians. They were encouraged to return ashore for a good-bye spree on their native soil. A "customs officer" stepped aboard and played exasperating tricks with their baggage. Another bogus official came rowing alongside to ascertain whether every emigrant was leaving Scotland of his own free will. (Lord Selkirk's protégés dealt with this point by dropping a nine-pound cannon-ball into the gentleman's boat.)

Thus early and artfully did the fur-traders of the North-West Company seek to thwart colonising. But the emigrants sailed, and two months later they arrived on the shores of Hudson Bay, where they remained in huts during a long, wearisome winter and spring. In the first week of July they started in boats down Hayes River to Lake Winnipeg, and so to the Forks, on the Red River, where they arrived by the end of August. Wondering Indians came to gaze at the white strangers who had arrived on the prairie, not to

collect furs and not to hunt, but—by all that was mysterious and incredible—to make things grow in the ground.

Meanwhile another party of Lord Selkirk's colonists had left Scotland. Again there were unseen enemies at work. Mutiny was fomented on the voyage, but, after one man had had an arm cut off, the affair fizzled out. Of that second party to arrive at Hudson Bay, some eight or ten men pushed on in the same year to Red River. Three of them tarried by the way to do some fishing, and when they set out to accomplish the last stage of their journey, winter set in, they ran short of provisions, and their strength gave out. Two lay down on the windswept ice to die. "The third," Agnes Laut tells us, "hurried desperately forward, hoping against hope, doggedly resolved, if he must perish, to die hard. Suddenly a tinkling of dog-bells broke the winter stillness, and the pack-trains of North-West hunters came galloping over the ice. In a twinkling the overjoyed colonist had signalled them and told his story, and in less time than it takes to relate, the Nor'-Westers were off to the rescue. The three starving men were cared for till they regained strength. Then they were given food enough to supply them for the rest of the way to the settlement."

Yearly contingents went out, and it is recorded that the emigrants of 1813 included young girls going to make a home for aged parents, a patriarch and his wife who had been evicted from their Scottish home, Irish Catholics, staid Scotch Presbyterians, dandified Glasgow clerks, red-cheeked Orkneymen, younger sons of noble families, and shy and demure Moravian sisters and brethren. They had their trials. There was an outbreak of typhus on the voyage; on their sub-

sequent trek across country, they cut their feet on ridge stones, and sometimes had to wade waist-deep through swamps; and once they ran short of food and were reduced to eating nettle leaves.

To pave the way for his colony, Lord Selkirk had bought a controlling interest in the Hudson's Bay Company. But that company and the Nor'-Westers were still at deadly feud. The peaceful settlers found themselves in a hornets' nest. They were terrified by the portents of a gathering storm. Half-breeds went about singing their war songs; musketry firing was heard at night. A section of the colonists suffered the Nor'-Westers to escort them to the security of Eastern Canada. The others remained to see the forts of the rival traders dealing out death and destruction. At one time the colony buildings were set on fire, the Selkirk settlers fled in terror to Lake Winnipeg, and nothing remained but their charred homes and trampled crops. Then came two hundred fighting men under the Hudson's Bay flag, and as they brought word that Governor Semple was on his way to take command, bringing with him 160 additional colonists, and that Lord Selkirk himself would arrive in the following year, the agriculturists returned to Red River and started all over again.

Governor Semple had not been long at Red River before he and his staff, with a few other persons, were killed, whereupon the Hudson's Bay stronghold (Fort Douglas) fell into the enemy's hands. Poor colonists! they were tilling the soil in a very noisy neighbourhood. New excitement was provided in the following year, when Lord Selkirk (now a very warlike philanthropist) arrived with several hundred discharged soldiers and retook Fort Douglas. After that, the colonists experienced

less troubled times; and when the two fur-trading companies coalesced in 1821 an era of peace dawned for the district. Meanwhile, harassed, weary and ill, the founder of the colony had gone to France, where on November 8th, 1820, a noble life drew to a pathetic close.

Fate lavished her favours on Thomas Douglas, fifth Earl of Selkirk and Baron Daer. He possessed youth, health, wealth, position and power. And he applied those blessings, not to selfish ends, but to the service of humanity. I like the simple words in which Lord Selkirk's character was described by his contemporary and friend, Sir Walter Scott. The great novelist testified to his "generous and disinterested disposition," and to his "talents and perseverance."

Lord Selkirk is to have a memorial, and a memorial worthy of the man and his work. The Centenary of the foundation of the Selkirk settlement (from which Manitoba has sprung) is likely to be celebrated in 1914 by an exhibition at Winnipeg—an exhibition of a character and on a scale to arouse interest in, and attract visitors from, all quarters of the globe. Indeed, the Dominion has thoughts of celebrating the occasion by holding its first "World's Fair," after the pattern set by London forty-nine years ago, by Philadelphia twelve years later, by Paris in the opening year of this century, and by Chicago in 1893.

There are several reasons why a Winnipeg Exhibition justifies high hopes. On previous occasions, millions of people, travelling across oceans and continents, have visited a World's Fair in order to see—a World's Fair. People would be attracted to the Manitoba capital in 1914 to see that and something more. It would be an opportunity to witness a rare

spectacle—the rising of a new nation that is destined to be big and powerful. For thousands of people it would be a chance to take a peep at the prairie—to see with their own eyes the Great North-West.

These International Expositions are occasions when one part of the world says to the rest of the world: "Come and see what *we* are doing." Visitors go with the intention of combining business with pleasure; and certainly no World's Fair would ever have been held in a country that presents such opportunities for investment and enterprise. The Winnipeg Show would take its international public to the very border of probably the greatest area of rich, unoccupied land to be found in the world. It would reveal a territory that is producing sufficient wheat to supply the whole population of England with bread, and producing it from soil which, for the most part, was only recently brought under cultivation.

Moreover, the Winnipeg Exhibition would serve to celebrate an event of which I have endeavoured to measure the significance. The one hundredth anniversary of the Selkirk settlement will witness the opening of through communication, *via* Hudson Bay, between Western Canada and Europe.

The Press of the Dominion took at once to the daring and delightful idea of a World's Fair at Winnipeg; and the more enthusiastic editors exclaimed: "We must see to it that this is a record-breaking exhibition." That is certainly the right spirit in which to tackle a great undertaking. The Paris Exhibition of 1900 holds, I believe, the record, with an attendance of 50,860,801 visitors. But of course Paris is situated in a more populous hemisphere than the one in which Winnipeg occurs; so it would be fairer to regard the Chicago Exhibition of 1893 (which attracted 27,539,521 visitors)

as the achievement to be eclipsed. Though, indeed, having regard to relative population, Canada's triumph would be sufficiently remarkable if her first World's Fair compared favourably with the first World's Fair of the United States. It was held at Philadelphia in 1876, and the attendance was 9,910,996, or over 3,000,000 more than the attendance at either of London's great exhibitions.

Last year, when at Winnipeg, I called at the executive offices of "Canada's International Exposition and Selkirk Centennial, 1914," and there I learnt that preparations for the event were well advanced. The project was associated with £1,000,000. Half was expected from the Federal Government, most of the balance being provided by the following grants: £100,000 from the City of Winnipeg; £100,000 from the Canadian Pacific Railway; £100,000 from the Grand Trunk Pacific Railway; £50,000 from the Canadian Northern Railway; and £50,000 from the province of Manitoba. To complete the £1,000,000, the business men in Winnipeg were asked to take up stock to the extent of £100,000; which they promised to do. The directors undertook to lay out that million pounds to advantage; and it was estimated that buildings and exhibits provided by the various Canadian, British and Foreign Governments would represent a value equal to another million. So that persons who visit Winnipeg in the summer of 1914 are likely to have a good time and find plenty to see.

As a matter of fact, if they saw nothing but Winnipeg itself their time and money would be well spent, It is a marvellous and a magnificent city.

WINNIPEG OF TO-DAY

CHAPTER XIII

KEY TO CANADA'S MINERAL WEALTH: A WARNING TO BRITISH CAPITALISTS

ONE department of the Federal Government of Canada presents the stirring spectacle of many scientists working at high pressure and in high spirits.

Savants in Great Britain are wont to act with a deliberation that might almost be called leisurely, the daily life of our learned societies being characterised by placidity rather than precipitancy. They have been investigating the minerals and the fauna and flora of their little country now for some centuries, and though there may be an insect or two still to be caught and classified, the matter is not pressing.

An extremely opposite state of things obtains in Canada. It was only the other day, so to speak, that it set up in business as a unity and a nation, and at that time next to nothing was known accurately about its natural features. Soil, rocks, climate, fish, trees, birds—none had been properly overhauled. The farmers, the miners, and the railway constructors called urgently for information that could not be supplied. In a word, there was a bewildering lack of all the precise knowledge on which every large community unconsciously rests.

And so the Federal Government, as one of their earliest concerns, set to work on a sort of scientific

stock-taking—a process that is still in full blast. They got together all the good scientists they could lay their hands on — geologists, mineralogists, geographers, botanists, naturalists, chemists, meteorologists, ethnologists and the like—and hustled them off to find out all they could about Canada; and, since that sort of person is born rather than made, the Federal Government early found themselves confronting a shortage of human material—a kind of famine of scientists—which was the more regrettable since there was so much ground to be covered, such appalling arrears to overtake. However, recruits were imported, and educational facilities were provided for the rising generation of professors, and to-day there are in the Government service of Canada as fine and mobile an army of scientific men as, I imagine, could anywhere be found on this planet.

It makes one almost giddy to think of all those Government geologists hurrying every year across the country—one to study the economic minerals of New Brunswick, another to visit the goldfields of British Columbia, a third to tabulate the copper-bearing rocks of Sherbrooke, a fourth to visit the mica mines of Hudson Strait, a fifth to scrutinise the surface geology of the Great Plains, a sixth to collect facts about tin-bearing strata in Nova Scotia, a seventh to explore the raised shore-lines of the Blue Mountain escarpment. Some have been packed off at a moment's notice—for example, to inspect a collapsing mountain (the people living at the base having become anxious), and to report upon a meteorite that had just fallen in somebody's homestead (and which, when the scientist arrived, had already been sold for two hundred dollars). It does one's heart good to think of the stream of scientists, booty laden

and full of enthusiasm, returning at the end of the season : the triumphant mineralogist, with his diamond-bearing chromite, his apatite crystals, and his pink scapolite; the zealous zoologist, with eggs of the chickadee and the belted kingfisher, some rare fresh-water mussels, an albino skunk, and scores of marine fishes in alcohol; the brother naturalist, with treasure unthinkable of sea-slugs, toads, and seaworms; the ethnologist, with his human skulls and bones, and his stone adzes and hammers; the perspiring palæontologist, with goodly parcels of fossil bryozoa, supplemented, it may be, by the tail of a scarce trilobite and the right posterior molar tooth of a ruminant belonging to the order Ovibos.

To give some idea of the industry and activity of these learned servants of the State, I will briefly outline the work accomplished by one naturalist in one season. Having put his "Catalogue of Canadian Birds" through the press, Mr. John Macoun made ready to depart for Vancouver Island, his preparations including the compilation of a list of all the plants that had been reported to occur there. Before starting he also superintended one assistant in arranging botanical sheets for the herbarium, and another assistant in re-labelling a quantity of mammal and bird skins. Then, having sought and obtained permission "to write up the entire natural history of Vancouver Island," he departed to Victoria with an assistant, the two energetic enthusiasts at once setting to work to secure flowering plants and the eggs of migrating birds and "to collect the fauna and flora of the sea"—in which work they were "very successful." By June they were at Departure Bay, "ranging the country for miles around" to tabulate the birds and secure samples of plants and trees. "I

was also employed," Mr. Macoun reported, "in collecting from the sea, especially sea-weeds." Going post-haste to Nanaimo, he met by appointment another assistant, whereupon, securing a boat, they carried out some exhaustive dredging operations. One haul, at twenty-five fathoms, brought up sixty specimens of a rare hexactinellid sponge. They took 156 star-fish, 195 crabs of various kinds, over a hundred different sponges, "a fine collection of barnacles," and "a very large collection of marine shells." Both assistants "were indefatigable." One went out every evening with a lamp and net and caught moths and beetles. "This collection alone numbered over 600 specimens." The party captured 1,100 species of flowering plants, about 400 species of cryptogams, and nearly 150 species of sea weeds; and the naturalist decided that another season's work would enable him "to write an exhaustive report of the whole fauna and flora of the island," provided he again had those two most excellent assistants with him. Remembering he had promised to visit Rossland and inquire into the rotting of mine timbers there, he darted off on that mission, found that four species of fungus were responsible, explained that the evil would be prevented if the timber were treated with a strong saline solution, and then went hurrying back to Ottawa, where he set about naming a number of plants that had been received from Guelph, Winnipeg, Calgary, and other places. He also seriously tackled the question of the flora of the Ottawa district—after which, I dare say, Mr. Macoun began to feel tired.

When in Ottawa, I found myself fascinated by this scientific overhauling of the great Dominion, and an interest which at first was of an abstract and general character, presently took concrete and definite form.

I decided to seek for an authoritative and comprehensive pronouncement concerning the mineral resources of the country, and for this purpose I sought an interview with Mr. R. W. Brock, the director of the Geological Survey.

"You are right," he said, when, in opening up the subject, I suggested that investigations could not at present have advanced very far; "we are a long way from having measured the mineral wealth of this vast country. Much of the territory has not been explored in even the most cursory way, while anything like a detailed examination of the rocks has at present been possible in only very limited areas. Still, the information we have already accumulated is sufficient to reveal Canada's main geological features, to supply a rough indication of the districts that will yield minerals, and to show that the Dominion is destined to become one of the greatest mining countries in the world. For the amount of mineral land awaiting the prospector is prodigious—the greatest, in fact, that now anywhere remains unexploited."

I told Mr. Brock that, before going into the question of the wealth awaiting discovery, I should like to have from him a general statement of the valuable mineral deposits that had already come to light. Accordingly he was so good as to furnish me with the following particulars:

"Coal is abundant and is extensively worked in the eastern and western provinces. The more important mines are situated in Nova Scotia, British Columbia, and Alberta. New Brunswick produces small quantities of coal for local use, and lignites are mined to some extent in Saskatchewan. Iron is found in most parts of Canada, but only in Nova Scotia, Ontario, and Quebec is it as yet of industrial importance, and there

it is developed on only a limited scale. Substantial progress is, however, being made, and notable expansion may be expected.

"Gold is worked in British Columbia, Yukon Territory, Ontario, Nova Scotia, and Quebec, and along certain rivers of Alberta. In British Columbia the lode mines now furnish the principal production, but placers are still of importance. Ontario and Nova Scotia have only lode mining. Elsewhere placer mining furnishes the gold. Silver is derived from the rich ores of Northern Ontario and the silver-lead mines of British Columbia. The extraordinary development of the silver district of Cobalt and Montreal River has placed that region in the premier position among the silver camps of the world. An important addition to the output of silver is contributed by the gold-copper ores of British Columbia. A certain amount is also produced in the copper-sulphur ores of Quebec.

"Copper is furnished by British Columbia, Ontario, and Quebec, and its production in the first-named province is rapidly expanding. Lead is almost entirely derived from the mines of British Columbia, but it also occurs in the other provinces. Zinc is widely distributed, but the production is as yet light and mostly from the lead mines of British Columbia. Nickel is largely confined to the mines of the Sudbury district in Ontario—mines that are, however, by far the most important in the world. A certain amount is produced in the Cobalt district, while prospects still farther north, resembling the Sudbury occurrences, are undergoing development. Manganese, in the form of its oxides, is produced intermittently in Nova Scotia and New Brunswick. Mercury has been furnished in small quantity by British Columbia.

"Platinum occurs in some gold placer deposits in British Columbia, and also in the nickel-copper ores of Sudbury. Tin and wolfram have recently been found in the gold veins of Nova Scotia. Wolfram also occurs in British Columbia and New Brunswick. Tin-bearing minerals have been discovered in some pegmatites of Eastern Ontario and Quebec. Arsenic is obtained in connection with gold ores in Eastern Ontario and in the silver ores of Cobalt. Antimony is produced to some extent in Nova Scotia. It is being developed in New Brunswick and at a few points in British Columbia. Chromite is mined in Quebec.

"Asbestos is the chief mining product of Quebec, and the deposits of this mineral in that province are the most important in the world. Graphite occurs in important deposits in Eastern Ontario and Quebec, but the industry is not fully developed. Gypsum is extensively mined in Nova Scotia and New Brunswick. It is also mined in Ontario. It occurs in other provinces as well, and is beginning to attract attention in British Columbia. Mica is an important product of Ontario and Quebec, where it occurs in shoots in veins. Some of the deposits are very large. Phosphate of lime, or apatite, is still produced, generally as a by-product of the mica mines. Corundum is found extensively in Eastern Ontario from deposits which, as regards purity and magnitude, are unique. Feldspar occurs in wonderful purity in Eastern Ontario and Quebec, and is of considerable industrial importance. Pyrites is now mined extensively in Ontario and to some extent in Quebec.

"Petroleum and natural gas are obtained in Ontario. Alberta is also yielding a large quantity of gas, and will probably develop petroleum fields. Gas and some

oil are now being produced in New Brunswick. Salt of a very excellent quality is obtained in Ontario. New Brunswick and Manitoba also furnish a certain amount. Magnesite occurs in Quebec, and hydro-magnesite in British Columbia. Structural materials and clay products are found throughout the country, and their production is rapidly growing."

"And now, Mr. Brock," I said, "will you please tell me on what data you base your confident prophecy that Canada will become one of the richest mining countries in the world?"

"Well," replied the head of the Geological Survey, "you must know that North America consists of a series of natural zones running roughly north and south, and therefore the vast mineral wealth that has been already discovered in the developed and populated southern, or United States, part of those zones, supplies a sure clue to the vast mineral wealth awaiting discovery in the northern, or Canadian, part, which is only now beginning to be developed and populated. That is no mere theoretical deduction. It is supported by accumulating facts. Thus geological explorers report the occurrence of the same minerals and the same disposition of strata in the north as one finds in the south. Moreover, if you examine the results obtained to-day by our most outlying camps, you will find that they repeat the results obtained by the southern camps at a corresponding stage of their development. Again, geological discoveries follow the opening up of each new section, and those discoveries all point to the same conclusion, namely, that Nature has made the Republic and the Dominion joint participators in a vast mineral heritage."

"Will you please enumerate and define these

ZONES OF MINERAL WEALTH

The map reproduced above, has been specially drawn for "Canada To-day and To-morrow," by Mr. R. W. Brock (Director of the Geological Survey of the Dominion Government). It shows the great continuous geological zones which have yielded vast mineral wealth in settled southern areas, and of which—as high scientific authority confidently predicts—equally rich fields await exploitation in the as yet unsettled northern areas.

The numbering of the five geological zones follows the order in which they are mentioned in the accompanying chapter, namely, I, Appalachian province; II, Lowland province; III, Laurentian plateau; IV, Interior plain; V, Cordilleran belt.

geological provinces that are so indifferent to international boundaries?"

"There are five main zones or provinces," replied Mr. Brock. "First there is what may be called the Appalachian province, of which the Canadian portion embraces south-east Quebec and the maritime provinces. The Appalachian region is characterised by rock formations which range from pre-Cambrian to carboniferous, and which are typically disturbed and thrown into a succession of folds. You will be aware that some of the eastern United States are in the foremost rank of the world's mineral and industrial districts. They occur in the Appalachian region, the best developed State being Pennsylvania, which produces domestic minerals to a yearly value of nearly £2,000 per square mile. The same minerals occur over the Appalachian extension into Canada. Important deposits of coal, iron, and gold are mined in Nova Scotia. Of lesser importance, but of considerable value, are the gypsum, stone, and building-material industries in that province, where manganese, antimony, tripolite, and barite are also mined, while some attention is paid to copper; indeed, Nova Scotia already has an annual mineral production of about £200 per square mile. The comparison between £200 and £2,000 may not seem impressive, but it bears a fair relation to the difference between the density of population in Pennsylvania and in Nova Scotia. That matter of population is, of course, vital, since mineral production, like agricultural production, passes with the development of a country from methods that are rough-and-ready to those that are 'intensive.' Expert authorities have estimated the coal reserves of Nova Scotia at 6,000,000,000 tons. The thickness of the carboniferous system is believed to be

in some parts 16,000 feet, and at the Joggins, on the north arm of the Bay of Fundy, is a remarkable continuous section showing 14,570 feet of strata, including seventy seams of coal.

"In the matter of mineral development New Brunswick is still very backward. This is partly due to the covering of soil, but mainly to the forested state of large areas—conditions that make discoveries difficult. Indeed, very little of the country has been prospected. The principal products so far are gypsum, lime, coal, building material, grindstones, clay, and mineral waters. Iron promises to become important. Antimony is being mined, while copper, lead, silver, nickel, gold, etc., have been found. Shales rich in oils and ammonium salts occur in large quantity. We have just found very fine clay deposits in the maritime provinces.

"South-east Quebec is already a high producer of economic minerals. In addition to possessing the main asbestos mines of the world, it has important industries in chrome-iron ore, copper, and pyrites. Iron ores and gold also occur there. And so I think I have supplied you with plenty of reasons for agreeing that the Appalachian area may ultimately give as good an account of itself in Canada as it has in the United States."

"And what of the next geological bond between the Stars and Stripes and the Union Jack?"

"Next in order," replied Mr. Brock, "comes the Lowland province, embracing the southern portion of Ontario and the valley of the St. Lawrence. It consists mainly of flat-lying palæozoic rocks, and is, so to speak, an extension of part of the State of New York. On both sides of the international boundary the mineral products are the same—namely, clay, cement, and other

building materials, as well as petroleum, natural gas, salt, gypsum, and other non-metallic products. They are extremely valuable, if they do not appeal to the imagination in quite the same manner as the metallic minerals."

"The two geological areas you have dealt with so far," I ventured to point out, "have covered only a portion of Eastern Canada."

"Exactly," replied Mr. Brock. "But the next geological province to be considered embraces about two million square miles, or more than one-half of the Dominion. It may conveniently be called the Laurentian plateau. It runs from Newfoundland to the eastern border of Manitoba, embracing the vast territories lying north of the St. Lawrence Valley, and enclosing Hudson Bay like a huge V. It is an area of pre-Cambrian rocks, and one extension passes into New York State (where it supports some large and varied mineral industries), and another extension crosses into Michigan, Wisconsin, and Minnesota (where it provides the Michigan copper mines and the great Lake Superior iron ranges).

"These pre-Cambrian rocks are remarkable for the variety of minerals they contain. Iron, copper, nickel, cobalt, silver, gold, platinum, lead, zinc, arsenic, pyrite, mica, apatite, graphite, feldspar, quartz, corundum, talc, actinolite, the rare earths, ornamental stones and gems, and building materials are found in the Laurentian plateau, and nearly all of them are being profitably mined. And since the list I have just given you is far from complete, it would perhaps be better to describe the wealth of the Laurentian plateau negatively. Diamonds have not yet been located in that geological region, though, I should add, as they have been found

in glacial drift brought from that area, they undoubtedly occur there.

"So far as Canada is concerned, the plateau is still, in the main, an unvisited treasury. Over the greater part of the area there have been nothing but the most general scientific surveys. Our southern fringe of the plateau is the only Canadian part that is known, and even of that southern fringe merely a portion has been prospected. Of the more important discoveries in that southern fringe, you will not need to be reminded. There are the gold ranges of the Lake of the Woods; the silver of Thunder Bay; the iron ranges extending from Minnesota for hundreds of miles to Quebec; the copper rocks of Michipicoten and the Bruce mines; the Sudbury copper-nickel deposit; the Montreal River and Cobalt silver areas; the corundum deposits of Eastern Ontario, and the magnetites of Eastern Ontario and Quebec. It is true that few good merchantable iron deposits have been found in our extensive iron range formation; but in the Mesabi range—the richest in the world—only about two per cent. is iron ore, so that immediate discovery in the little prospected areas in Canada is scarcely to be expected."

"And am I not right in supposing, Mr. Brock, that the most sensational mineral discoveries have been purely accidental?"

"That is so," admitted the geologist. "The navvy, in making his excavations, has blundered upon immense treasure. Thus the greatest asbestos deposits of the world were brought to light because a track for the Quebec Central Railway happened to be blasted through them. Then take the case of Cobalt, now the premier silver camp. Although only a few miles from one of the earliest routes of travel in the country, and although

only a few miles from a silver-lead deposit that has been known for a hundred and fifty years, Cobalt was discovered less than eight years ago, and then only because a railway chanced to be cut through a rich vein. It was a railway excavation, too, that revealed the Sudbury nickel deposits. Still, you must not run away with the idea that all the laurels have been won by the navvy. To mention only one of the 'finds' made by our staff, it was an officer of the survey who discovered the rich corundum deposit extending in a belt one hundred miles long. Yet that discovery serves, equally with those of the navvy, to illustrate the unprospected nature of Canada—even of those parts of Canada that have been populated for a considerable period. For that corundum was found in a district that had long been settled.

"What a field for explorers is that Laurentian plateau! It is not possible for the most pessimistic person to fear that Nature has, by a strange coincidence, concentrated all the mineral wealth in the only part that is populated—that southern fringe which, though still only imperfectly prospected, has yielded over four hundred million tons of iron ore, nearly five thousand million pounds of copper, and immense quantities of silver and the other minerals I have mentioned. The explorations of the geological survey have shown that, scattered over the whole area, are patches of all the various formations that go to make up the pre-Cambrian; while practically every mineral that occurs in the south has been noted by explorers in the north. It is therefore quite safe to assume that, in the great northern areas as yet unattacked by the pick of the prospector, are vast stores of minerals that will come to light when the country is opened up."

I told Mr. Brock that, although he had dealt with only three of the geological provinces shared by Canada with the States, he had said enough to convince me that the Dominion possessed adequate mineral wealth to support its high destiny.

"Still," said Mr. Brock, "there is more to be told; and this very imperfect survey of our mineral resources must not be broken off in the middle. I now come to the fourth geological province, which it is convenient to name the Interior Plain. It embraces Alberta and the bulk of Manitoba and Saskatchewan, extending across the border into the Dakotas. It is pre-eminently an agricultural country, and is notably deficient in metallic minerals, as might be expected, because it is underlain with a thick blanket of almost undisturbed cretaceous and tertiary sediment. Gold dredging is carried on in the sands and gravels of the North Saskatchewan River below Edmonton; gypsum is mined in Manitoba; salt occurs in that province and in the lower Athabasca region; but with those exceptions, and materials used in the building trades, the mineral production of the Interior Plain is almost entirely confined to fuels, which, however, are very important. Natural gas over a wide area and under great pressure has been tapped, and there is every indication of a large oil field in, at any rate, the northern portion of Alberta, while some oil has been encountered in the south-west. The lower cretaceous sandstones along the Athabasca River, where they come to the surface, are for miles saturated with bitumen. These tar sands will probably average twelve per cent. in maltha, or asphaltum. Mr. R. G. McConnell saw tar sands occupying about one thousand square miles, which, taking the thickness at his estimate of 150 feet, would represent nearly five

thousand million tons of bitumen. The lignites of the eastern plains are useful for local purposes, and beds more highly bitumenised are met with as the mountains are approached. Mr. D. B. Dowling has satisfied himself that there are 7,500 square miles of coal land in Saskatchewan, and nearly twenty thousand square miles in Alberta, and he credits explored parts of the last-named province with four hundred million tons of anthracite, forty-four thousand million tons of bituminous coal, and sixty thousand million tons of lignite."

"And the story of Canada's wealth is still unfinished?" I asked.

"The most impressive part," replied Mr. Brock, "has still to come. We have now to consider the fifth geological province—the Cordilleran Belt. In Canada it has a length of 1,300 and a width of 400 miles, and it extends across the western States, through Mexico, and into South America. Its rocks range from the oldest to the youngest formations. Vulcanism and mountain-building processes have repeatedly been active in that province. The Cordilleran Belt is recognised as one of the greatest mining regions in the world, it being noted principally for its gold, silver, copper and lead. Of the well-nigh incalculable wealth of gold and other minerals in California and Mexico I need not remind you. And the riches of the Cordilleran Belt in the south afford a sure clue to its riches in the north. In Canada and Alaska the geological province is still for the most part unprospected. But here and there, as you know, the wealth has been tapped, and last year (1909) British Columbia alone yielded minerals to the value of nearly £5,000,000. So far the Yukon has practically produced nothing but placer gold, but it has produced about £25,000,000

worth of it. While partial development has taken place along the international boundary line, and while some of the main streams have been imperfectly prospected for placer gold, the greater part of the Canadian section of the Cordilleran Belt is as yet untouched. Probably not a fifth has been prospected at all, not a twentieth prospected in detail, and not one area, however small, completely tested. The Belt in Canada is not merely rich in gold, silver, copper, lead and zinc, but it has enormous resources of excellent coal, varying from lignites to anthracite. Only the coal areas in the southern portion of British Columbia, and a few small areas on the Telkwa and Nass rivers, and on the Yukon, are at present known, but Mr. D. B. Dowling estimates that the prospected fields represent, in the Yukon, thirty-two million tons of anthracite, and the same quantity of bituminous coal, and, in British Columbia, twenty million tons of the former, and 38,642 million tons of the latter. Then, too, great unprospected areas are known to contain, in places, coal formations, and no doubt they will, when explored, add greatly to the reserves I have just mentioned. So far, production has not kept pace with discovery; but a largely increased output may be expected in the near future, for those regions supply the best steaming and coking coals anywhere to be obtained in the West, and new railways will facilitate distribution. Only about one-fifth of Alaska has been explored, and lack of transportation facilities hinders development there; but already Alaska has a large production, which shows that the Cordilleran Belt maintains its highly mineralised character throughout its length."

"And now, Mr. Brock," I said, "there is another matter about which I should like you to express your

views. How comes it that, when Canada possesses all this mineral wealth, the English people have, in the past, so often burnt their fingers in financing Canadian mines?"

"I am very glad," replied Mr. Brock thoughtfully, "you have raised this question, which is of great importance. Not all have burnt their fingers, but there have been too many instances, some of them notorious. You are thinking mainly, I presume, about events that are rather more than fifteen years old—events which resulted, necessarily but most unfortunately, in deflecting British capital from Canada; though happily, thanks to the lapse of time and the logic of facts, the financial suspicion and sensitiveness then generated have passed away. Of course in those affairs there were deplorable elements for which Canada was in no way responsible. One name in particular will be present in both our minds; but, at this time of day, the personal side of the matter need not be recalled; and I will only say generally that we had nothing to do with the ludicrous over-capitalising of good properties, and the crippling process of establishing offices and staffs on a scale which, though undoubtedly princely and imposing, was, from the practical point of view, not merely superfluous but ineffective.

"Speaking generally," continued Mr. Brock, "the causes of non-success are bad investment, bad management, and perhaps in some cases bad luck. There have not been many bad investments by mining companies that know what they are about, that employ experienced, technical men to look over the field and closely examine a property before purchase, and that move cautiously and intelligently, doing their developments step by step. It is quite common to see the investments made by men

who are not sufficiently competent or experienced to form a sound judgment, or who do not carry out an adequate personal investigation before effecting their purchases. Sometimes it is very evident that knowledge and training were not the qualifications that led to their selection for such responsible work. It is by the merest chance if those investments turn out satisfactorily. Unfortunately, in every country, and in Canada as elsewhere, there are people ready to profit by such visitors. The knowing ones promptly take their mental measure, learn what financial backing they have, and very likely bait a trap for them."

"In other words," I could not forbear to observe, "the innocent Englishman falls among thieves."

"That," said Mr. Brock quietly, "is a harsh but not unwarranted way of putting it. However, a man who is willing to buy a pig in a bag does not require to leave home to find those willing to accommodate him. I am prompted at once to say two things: in the first place, the practices to which I refer are confined to a small minority of a large and honourable class of men; and, secondly, those who act in this way are actuated by a belief that, where the wits of one man are pitted against those of another, the keener party is entitled to any advantage he can secure. These men are, you must remember, born gamblers; and they lay themselves out to win, not so much for the sake of the material profit (they are mostly men of substance) as for the sport of the thing."

"Fraud for fraud's sake," I interjected.

"Please understand," Mr. Brock again reminded me, "that I am explaining, not exculpating, their conduct. And, as a matter of fact, no resentment that you can express at these miscarriages of capital can

equal the regret they excite among responsible people in this country. For British capital is an important factor in Canada's development; and it is therefore greatly to the interests of Canada that British capital should, in all cases, be invested in mines that will pay well, and thereby serve as a magnet for further British capital."

"Will you," I asked, "make the position clearer by indicating the sort of meshes in which my unsuspecting countrymen get entangled?"

"Well," said Mr. Brock, "occasionally they are represented by a man who pays too much attention to what he is told. Such a man may travel over a good deal of territory, meet a number of mining folk, and hear a great deal about the exceptional merits of, let us say, the M. Tee property, until he places an undue valuation upon it, and is consumed by a desire to become its possessor."

"And so," I exclaimed, "that most treacherous form of conspiracy is considered by the guilty parties as sport?"

"Call it what you will," Mr. Brock replied, "but the interests of Canada, as well as of the English investor, demand that a different type of representative should be engaged.

"Another cause of non-success has been the time at which British capital has been invested. It has come in on the crest of a boom, a prospect being purchased as, and at the price of, a mine. When the prospect fails to develop into a mine—and only a very small percentage of prospects can reasonably be expected so to develop—one more investment is announced as a failure. If prospects are invested in, the investors should be prepared to take up a considerable number,

and only after careful selection, so that there may be a reasonable chance of one of them developing into a mine. The selection should be made on the best possible technical advice, which should include the recommendation of a reputable expert who has local knowledge. The mining engineers of Canada are as intelligent and reliable as those to be found elsewhere, and they have their local reputations at stake and—I am sure I can add—their country's good at heart. That expert local knowledge is the best insurance one can have against an unfortunate investment. No matter how tempting an option may seem, it should not be taken up until there has been a personal investigation by, and a favourable report from, an expert of professional standing and local knowledge. When that principle is more generally understood and acted upon, Canadian mines will become reliable and prosperous investments for British capital, instead of mere speculations.

"You are not altogether free from the wild-cat promoter. There have been instances of properties being purchased, without regard to their merit or lack of merit, in a district that happened to be in the public eye, and, following the appointment of a management calculated to command confidence, the investor has been invited to subscribe for stock. In the case of property purchased in such a way, it would not be at all surprising if the best management in the world should fail to achieve success.

"Of lavish and superfluous expenditure on home offices I have already spoken. At the mine itself there has also been, in some instances, a good deal of money wasted on excessive plant and improvements—notably on permanent works when only those of a temporary

character were warranted. This extravagance has resulted largely from a want of familiarity with local conditions.

"But the worst mistake of all is to look after the details of management in Great Britain. Efficiency is impossible under those conditions. The management must be on the spot. Put in a man with the requisite knowledge and character and give him a free hand. If his work prove unsatisfactory, dismiss him and get somebody else; but so long as he is manager let him act as such. Have a home man if you like as consulting engineer. Let him go out and decide the general plan of development; but give the local manager a free hand in carrying out the campaign. Let the consulting engineer inspect his work, and learn his reasons for having run this cross-cut and that drift; let the consulting engineer decide whether he is doing well or ill, whether he is saving money or wasting it, whether he should be retained or dismissed; but do not relieve the local manager of responsibility. Do not have him work on cabled instructions based on cabled reports and office maps, and then expect efficient management and a successful mine. If he needs assistance and advice he needs them at the mine, and that is where he should have them."

Those words, coming from the foremost Government geologist of Canada, carry great weight; and I hope Mr. Brock's counsel will be taken to heart by the City of London.

And now—not to close this chapter in a minor key—I will glance briefly at Canada's mineral production in 1910. It represented a value of £25,000,000, or rather more than a 14 per cent. advance on the figures for the previous year. Coal occupied the premier place,

with a value of, approximately, £6,000,000. Silver came next (£3,420,000), while pig iron, nickel and gold each yielded a total in excess of £2,000,000. They were succeeded in the scale of value by copper and asbestos.

CHAPTER XIV

NEW SASKATCHEWAN

THE story of modern Canada is a story of amazing mistakes and delightful discoveries. At every stage of development popular surmise has been made to look foolish by the accomplished fact.

"The statesman is alive who prophesied that if a railway were ever built around Lake Superior it would not earn enough money to buy axle grease." So I was informed by Mr. Arthur Hawkes, the genial publicist, who added: "On my first visit to Canada in 1885 I heard an Ontario man warning emigrants against going so far into the wilds as Winnipeg."

As for Saskatchewan, it was not so very long ago when people shrugged their shoulders over that "frozen and barren wilderness." It was opened up by railways, and behold Saskatchewan to-day as a smiling country that is excelled for grain production nowhere in the Empire. I learn that the agricultural produce of the province has already reached an annual value of £30,000,000, the total cereal crop for a year—according to Government figures—exceeding 200,000,000 bushels. When one understands that this is the yield from only twelve per cent. of the available arable land of Saskatchewan, one begins to see grounds for the prophecy, which has been uttered by Sir Wilfrid Laurier, that the day is not far distant when Saskatchewan will produce annually a billion bushels of grain.

And the curious fact has to be noted that the Saskatchewan of all those figures and references is not Saskatchewan at all, but only the southern half of Saskatchewan—the half that has been opened up by railways.

What particularly struck me in travelling through the province was that, when on the most northerly margin of the settled country, I kept coming upon farmers whose wheat and oats had won important prizes. The farmers were disposed to think the fact was sufficiently explained by their agricultural aptitude. But I could not help suspecting that their terrestrial latitude had a good deal to do with it. A six months' Canadian summer is longer—from a plant's point of view—than a seven months' Canadian summer. For wheat and oats do not make much progress in the dark; and the lengthening of the winters as one goes north is, within a limit only to be fixed by experience, a disadvantage of no account beside the advantage of longer summer days.

Settlement has probably not yet reached the ideal latitude for wheat growing. At any rate, having regard to the rapidity with which railways are extending, the time has come when, to Canada and her prospective immigrants, the possibilities held out by Northern Saskatchewan have become a matter of eager interest. I will therefore focus such meagre evidence as is available on the subject.

The first witness we will call is the Venerable Archdeacon J. McKay, who for forty-five years has been in charge of Church of England missions in the West. For a decade he lived on the Churchill River, a little to the north of Lac la Rouge. Therefore he is in a position to give us tidings of territory situated about

two hundred miles north of the limit of the surveyed lands—territory, however, which is still within the area of Central Saskatchewan.

The Archdeacon leads off with this appetising fact: cranberries, raspberries, blackberries, blueberries, gooseberries, and currants grow wild and abundant in the district. He reports that there are plenty of trees there, notably spruce and poplar, which are good for pulp-wood if not very important as timber. At Lac la Rouge he has seen good wheat raised for seven years in succession without any trouble being experienced from frost. Potatoes also grow there splendidly; indeed, as the reverend gentleman put it, the locality is "all right for raising anything that can be raised anywhere in Saskatchewan." He explained that if the country were cleared of timber it would, in his opinion, be fair agricultural land. With regard to stock, he could merely say that he himself had kept, at the mission on the Churchill River, fifteen head of cattle and two horses.

Archdeacon McKay is also able to testify concerning the Ile à la Crosse country, which lies in much the same latitude as the area already alluded to, but some hundred and sixty miles farther west. This is his instructive summary: "Plenty of timber, and plenty of hay as a rule—some prairie hay and some swamp hay—and the soil is fairly good. It is better than at Lac la Rouge, and it gets better as you go west." Questioned as to the wild grasses, he described them as "long," and as "very much the same as the natural hay in Manitoba."

Once more we hear of prairie fires; and it would seem that they have been particularly destructive in the rocky districts. Cross-examined with regard to

timber possibilities, Archdeacon McKay recalled the interesting circumstance that he himself had erected a saw-mill, which was run by water-power, at Lac la Rouge. He added these significant details: "The logs average seventeen to the thousand feet, and are fourteen or fifteen feet long. The diameter would be about two feet across at the butt. They are large, clean logs, very much the same as those at Prince Albert. This good timber is scattered all over the country, sometimes for miles." Pressed to give a more definite impression of the timber area, he said he believed it extended right away to the borders of the province. It appeared that he had travelled backwards and forwards a good deal, "visiting Indian camps and so on," and he noted very much the same kind of trees everywhere. Of course there are muskeg in some places, and in others he saw "heavy timber." Reindeer Lake was the most northerly point he had reached, and he saw plenty of trees up there.

It will now be of interest to learn what light the Archdeacon can throw on the fauna of unknown Saskatchewan. "In Lac la Rouge and the lakes generally," he said, "fish are abundant. They are mostly white-fish and lake trout. The Indians do not sell them; they have no market. For some time there would be plenty of fish for commercial purposes. I saw a lot in Reindeer Lake." With regard to fur-bearing animals, "sometimes they are on the increase, sometimes on the decrease, but on the whole there is a decrease, especially in beaver."

Archdeacon McKay gave some interesting details with regard to climate. A peculiarity of the country round Lac la Rouge, it seems, is that "the frosts are very late." On an island in the lake he has seen

potatoes growing in October, with the tops untouched by frost. He imagines that the large body of water serves to equalise the temperature; and he recalled the interesting fact that when Mr. Chisholm, the Indian inspector, came out one year to make treaty payments to the natives towards the end of August, the potato plants were unaffected both on the mainland and on the islands, "and the inspector told me that crop was a good deal touched at Prince Albert before he left."

The snowfall is not very heavy. Three feet on the level, it appears, would be considered deep snow. As a rule, the first frosts come in September. He had known potatoes to be "touched," but not seriously, on the fifteenth of that month. As for the time of sowing, grain could go in, as a rule, by May 5th. That was the date on which the Archdeacon had been in the habit of sowing wheat. He plants potatoes about fifteen days later.

Asked to give his impressions of the winter and summer temperatures, once more he drew an analogy between unknown Saskatchewan and a district in settled Saskatchewan. "In winter," he said, "judging from my own sensations, the lowest temperature is about the same as at Prince Albert. In the summer time the weather is as hot as at Prince Albert. But, of course, the country of which I am speaking is farther north, and therefore the days are longer." Of the Lac la Rouge district he reports that, speaking generally, there is sufficient rainfall for crops. One summer there was quite a long spell of dry weather, and it affected the wild fruits; but that was an exceptional state of things. The rainy season is quite equal to Manitoba's. Thunderstorms and hailstorms occur, but not more frequently than in the south.

"The only whites in the country," said the Archdeacon, "are the Hudson Bay officials and traders. I built the saw-mill to provide lumber for our mission buildings and boarding school. The number of Indians who take treaty money in that district is over five hundred. They are Crees."

In conclusion the Archdeacon pointed out that canoeing and pedestrianism represent the only means of reaching the desirable and productive region in which for so many years he has resided. Naturally he is anxious for a railway to connect settled Saskatchewan with Lac la Rouge. "It is all level country," he said; "there would not be the slightest difficulty in constructing the railway."

We will now turn to the evidence of scientific investigators. Acting for the Federal Government, Mr. J. Burr Tyrrell explored the vast tract of country between Athabasca Lake and Churchill River—the country, that is, lying north of the area with which we have hitherto mainly been concerned. With Mr. Tyrrell was associated that other distinguished and experienced geologist, Mr. D. B. Dowling.

Mr. Tyrrell reported that the country is generally forested, though most of the timber is small black spruce and tamarack. Banksia pine forms thin, park-like woods on the sandy plains. In places berries grow in great profusion, chief among them being the common huckleberry and the small cranberry. The former thrives in the deciduous woods along the Churchill River, while the latter covers the dry slopes from the Saskatchewan northward. The blue huckleberry is found on the banks of Cree and Stone Rivers, but the bushes did not seem anywhere to bear much fruit. The raspberry occurs on the richer ground by

A CORNER OF MONTREAL HARBOUR, SKETCHED FROM CUSTOMS HOUSE

some of the streams. The yellow swampberry is found abundantly in the moss of the wet spruce and tamarack swamps. On drier land towards the north he found the crowberry, while the Pembina berry grows in the deciduous woods beside the streams, especially in the southern portion of the district.

These explorers saw the moose, the barren ground caribou, the Canadian lynx, the grey wolf, red, black and cross foxes, the wolverine and the skunk. The black bear roams over the whole country. A few beavers may still be met with in many of the streams. The rabbit or American hare is found everywhere in the denser woods. Porcupines are plentiful around Cree Lake, and in those portions of the sandy country that have not recently been hunted over by Indians.

"The time at our disposal," said Mr. Tyrrell, "did not permit us to make a close examination of the birds seen, but, generally speaking, except along the banks of the Churchill River, where ducks breed in great numbers, birds are not at all numerous in the district explored." Coveys of ruffled grouse and spruce partridge were found in the thicker woods everywhere. A few snowy owls and bald-headed eagles were observed. Fish seemed to be everywhere abundant in the lakes and streams.

"The number of Indians who live in and travel through the country, obtaining a precarious existence by hunting and fishing, is," we learn from Mr. Tyrrell, "very small."

To quote another authority, Professor John Macoun (the well-known naturalist of the Geological Survey) said: "There can be no question about the value of the land north of the Saskatchewan, and settlers going in there are assured of three essentials—wood, water,

and hay—for cattle. . . . The low altitude and the long day are fixed conditions."

With reference to altitude, I may point out that Prince Albert is nearly five hundred feet lower than Regina, and that the Lac la Rouge district is two hundred and sixty feet lower than Prince Albert. Regarding the duration of sunlight, a careful record was made, over a period of four months, as to the relative length of day in the district under consideration, at Prince Albert and at Ottawa. Taking a date at random (June 20th), the figures were, respectively, 17 hours 30 minutes, 16 hours 42 minutes, and 15 hours 26 minutes.

In conclusion, let me briefly refer to the experiences of Mr. Frank J. P. Crean, who was specially commissioned to explore, in 1908 and 1909, the huge areas of Saskatchewan and Alberta lying north of surveyed limits. Mr. Crean reports that those northern countries are "capable of producing large quantities of cereals and farm produce and of supporting a large population. The over-abundance of water and lack of natural drainage, causing large swamps and muskegs, might, in my opinion, be easily remedied by clearing out some of the rapids on the Churchill River and providing outlets for the surplus water where natural outlets are lacking. Very little work would be necessary to open fine waterways navigable for small craft throughout the country. . . . . The climate seems well adapted for raising any cereals. In fact, wherever wheat has been tried it has been grown successfully. . . . I would estimate that an area of fully 5,000,000 acres is suitable for settlement as soon as surveyed and made accessible by roads; and an area of about 12,000,000 acres of swamps, or land probably too wet at present for successful culti-

vation, could be reclaimed at a moderate expenditure. . . . In the south-easterly portion the soil is good, being a light loam, with a blue clay subsoil; towards the west the land is light loam with a sandy clay subsoil. . . . Of course the winter is cold, but not any colder nor longer than the winter in some of the settled portions of Saskatchewan. In August, 1908, a frost occurred almost all over the settled parts of Saskatchewan, but did not apparently affect the northern portion which I explored. . . . I was at Portage la Loche on September 17th, and the potato tops were not frozen in the least. The garden was also quite untouched. Cabbages, carrots, parsnips, etc., all looked well."

Everywhere Mr. Crean found an abundance of hay. In places the meadows were small, but always numerous. Among the chief birds he saw were swans, geese, ducks, partridges, gulls, jays, kingfishers, crows, robins and loons. He noticed that the staple food of the native north of the Saskatchewan is fish, with which he is abundantly provided. "North of the Churchill," Mr. Crean reported, "lies a district of great promise from a mineral point of view." Finally, we learn, "there are many points where a large amount of water power could be developed."

CHAPTER XV

INDIANS AND THE MISSIONARY

THE presence of the red man in Canada—and, for the matter of that, in the United States—has put the white man's capacity and character to a searching test. I refer to the white man of the modern world, for the attitude of our ancestors towards the Indian was controlled by different contemporary conditions.

Here were some belated representatives of prehistoric man—human beings without culture or conscience, and who, but for a superior resourcefulness, seemed on a plane with the brutes of the field. By arms this wild people had easily been tamed. But from that moment they became a political and social problem with which, though it well might prove insoluble, obligations of humanity compelled the Government of Canada to grapple, without stint of effort, money or patience.

Could these quelled savages be civilised?

Worldly wisdom shook its head, and hope had nothing but faith to rest upon. The Red Indian had inherited no higher ideal of conduct than the slaughtering and scalping of tribal enemies—men, women and children—and self-mutilation as a stimulus to personal bravery. True, those practices were now prohibited by the whites—by that mysterious, masterful race who had brought fire-arms and fire-water into the Red Indian's life.

Vaguely I knew of the missionaries who labour among the Indians and Eskimos, their lives consecrated to the work which holds them, from year to year and decade to decade, outside the range of public knowledge and recognition. I sought through the mind of one of those missionaries to peer into the Red Indian heart, so that my readers might be able to judge, from definite testimony on crucial points of human character, whether Canada's aborigines are fitted to survive.

My visit was to the Rev. Canon H. W. G. Stocken (of the Church Missionary Society), at the Blackfoot Reserve near Gleichen, Alberta.

"Archdeacon Tims came out here in 1883," said Canon Stocken, "and I came out in 1885. I was under Archdeacon Tims until 1888, and since 1895 I have been in charge of this mission. In the early years the outlook was dark. We sowed, and there was no visible harvest. It was difficult to reach the hearts of the Blackfeet. They had been fearless, fierce and successful fighters, and there seemed no room in their minds for beautiful and holy thoughts. Unlike other Indians, they even had no hope of 'Happy Hunting-Grounds.' Their barren imaginations only pictured aimless, restless wanderings on adjacent sand-hills after death. With dread and in a spirit of propitiation, they worshipped the sun, the moon, the earth, and the water. For them the weasel, the eagle, the crow, the otter, and the beaver were sacred, and they wore the skins and feathers of those creatures as charms. Thefts, murders, and crimes of all sorts were lauded if the penalty were escaped; and preservation from the penalty was invariably attributed to the protecting influence of some charm. Unlike Indians of the north and the east, the Blackfeet knew of no Great Spirit. There was no hope

in life, no hope in death, for that poor, unhappy people, whose God was their belly, whose glory was in their shame, who minded earthly things.

"Of course, through the schools, it proved possible to make some progress with the Blackfeet children. But I felt that, here as elsewhere, the work of reaching the adults was of supreme importance. Hoping against hope, we took all opportunities to try and illumine the minds of the chiefs, the braves and the squaws. For fifteen years with heavy hearts we laboured. Then on a sudden came our abundant reward. It was in the early spring of 1898. The schools, the hospital, the preaching, the conversations from time to time—all those influences yielded fruit in the day of blessing when we witnessed the birth of the Spirit among the Blackfeet. I will tell you what happened.

"For some time we had succeeded in attracting a few Indians to our Sunday services—merely a handful, among whom the only regular attendant was a young man named Kaksakin, which means 'An Axe.' One Sunday I was walking from the schoolroom, where the service had been held, and proceeding slowly towards the mission-house. I had been discoursing on the life of St. Paul, which had been the theme of my sermons for several months past. The old, old question was running in my mind—when would the great change come to my people? As I walked a hand was placed on my shoulder, and, turning, I found that three members of my congregation had followed me. Young Axe was one, Pukapinni ('Little Eyes') was another, and Pukapinni's brother Matsenamaka ('Handsome Gun') was the third. Young Axe was the first to speak. He told me of his desire to become a child of God and to be baptised. Then the others said the

same : and my heart leapt when I saw the eager sincerity on their faces.

"Those two brothers had come originally to our services at the eager persuasion of Axe. Curiosity and ridicule clearly engaged their thoughts at first. But the satirical smiles had gradually died away, and of late they had listened as earnestly as Axe himself. But of what was passing in their hearts I had no knowledge until that ever-memorable Sunday afternoon. Little Eyes poured forth the story of a dream he had had. In that dream he entered the school porch, and was standing by my side as I rang the bell for the morning service. Suddenly he saw a spiral staircase passing up far out of sight. I asked him to come with me up the staircase, and he consented, so that presently we ascended far above the earth, and came at last to the top, where a lovely country spread in every direction. In that dream I asked what he thought of the sight before him, and he said it was more beautiful than anything he had ever seen before. I urged him in the dream never to forget what he had seen, and then I bade him to descend again. 'I did so,' he said, 'trembling very much, but reached the earth in safety.' That was the end of the dream. He said God had sent it to him, and he wanted to obey His voice and be baptised."

That, Canon Stocken told me, was but the beginning. A great spiritual awakening had come to the Blackfeet, and for some time the reserve was in a state of strange unrest. Many had dreams, which were deeply impressive as told to the missionary by those awed and child-like Indians. For some time he lived amid marvels and mysteries, not knowing what new wonder the hour would bring forth. At first, indeed,

he was frightened and in a great uncertainty, scarce daring to hold to the hopes those manifestations put into his mind. Yet it did not seem incredible that matters should shape themselves thus, and not otherwise, when into the darkness of heathendom there first came spiritual light, leaving the Indian dazzled, bewildered, exalted.

"Following those first conversions," said Canon Stocken, "we had about twelve weeks of careful, individual preparation, and on March 27th, 1898, the first five adults were baptised, receiving the names of Paul, Daniel, Timothy, Thomas, and Ruth. From that time there were crowded congregations at the services. I can never forget those wide-open, straining eyes. No more impressive sight can any man see than the faces of heathen who begin to realise that there is something outside of themselves. The most solemn and wonderful time I think I ever experienced was on the evening of Easter Sunday. In the morning I had said, in dismissing my congregation, 'Now, to-night I'm going to have a special service in the mission-room for those Christians who want to understand more about the Resurrection, and I'll tell you of all the appearances of Christ that are mentioned in Scripture.' Every one of the Christians came, besides some heathen, among whom was the wife of our Axe. She was very angry with him for becoming a Christian. She had refused to go to the service. But he made her come. Thinking of Constantine's method, he was going to put the sword into force, so she yielded. Never shall I forget the awful, death-like stillness as those men and women strained their whole being, so to speak, to take in the subject of the Resurrection. You could positively have heard a pin drop on the floor. I was trembling all

over at the responsibility of telling them those things which now they heard for the first time. I concluded with a short prayer, and then I went out to put my surplice in an adjoining room. Before, however, I had taken it off that woman came rushing in—the wife of Axe, I mean—and cried aloud: 'Mokuyomakin, I do believe! I very much believe! I believe the teaching of God. I want you to baptise me also.' The upshot was that she became a most earnest Christian. My poor wife used to say that, apart from Naomi (and I will tell you about Naomi later), there was no one in her women's class upon whom she could lean more confidently than upon Esther, which was the name given in baptism to Axe's wife."

I asked Canon Stocken to elucidate the Indian name by which Esther had addressed him. "Mokuyomakin means Running Wolf," he explained. "The Indians christen everybody, you know. It was an old chief who dubbed me Running Wolf soon after I arrived. The words have no personal application to myself. The old chief said it was the name of a friend of his who had lately died, and for whose loss his heart was heavy. I considered he was paying me a real compliment, and I have always felt very proud of my name."

Canon Stocken next told me about Little Eyes, who figures on the Government list as Paul Little Walker. His father, it appeared, was Bull Backfat, who was head chief of the Blood Indians and a famous warrior and hunter. "When Little Eyes was only four years old," said the canon, "Bull Backfat was killed, accidentally or otherwise, by an Indian. The boy was then brought here by his mother, whose name was Little Walker, and he became one of the most

conspicuous lads on the reservation. I have told you of the dream that led to his conversion. He was thirty-one years of age at that time. He received the name of Paul at his baptism.

"It will be difficult for me," continued Canon Stocken, pondering his words, "to make you realise the simple earnestness and sincere devotion that have characterised that man's life down to the present day. I would like first to say that many and many a time he has helped me spiritually. There have been occasions of stress and sorrow when, following a long and exhausting day, I have sat alone at my desk in such an extremity of physical weariness that, when a knock has come at the door, I have been tempted to disregard the summons rather than have my rest disturbed. Sometimes Paul has proved to be the visitor, and each time, in a little while, his words and thoughts have lifted my oppression and renewed my strength, leaving me very grateful.

"Soon after his conversion he was going among the heathen Indians one Sunday morning, as came to be his custom, and trying to persuade them to attend the service. Among those to whom he spoke was the wife of one of his uncles—a woman bitterly hostile to Christianity. 'No, no,' she indignantly replied, 'I won't be seen inside your church. I don't believe in your God,' and she jumped up and got her tanning knife and started to tan. Paul said: 'This is God's day. It is not the will of God that we should work seven days. Our bodies need a rest, and to-day it is our duty to worship.' Then he walked away. But he had not gone many steps when he heard a scream, and, turning round, he saw the woman lying in convulsions on the ground. 'Go away,' she cried, when

he stepped up to her; 'your God has done this.' 'Done what?' he asked. 'Broken my knife in half,' she replied. And then he saw that the blade of the tanning knife had snapped. 'I do not know if God did this,' Paul quietly rejoined, 'but you had better learn a lesson from it.' And, as a matter of fact, though that woman never became a Christian, she was ever afterwards respectful about Christianity.

"Paul, you will notice, is not superstitious. One day, soon after his conversion, we were talking about Indian charms, some specimens lying before us. 'If there was anything in them,' Paul said simply, 'they would jump up and help me to have a better temper.' He was a little hasty and liable to fits of anger, I should mention, until he learnt to conquer the weakness. Indeed, several people told me that he had been, as they put it, a very tough sort of fellow. How different to the later Paul—the present Paul!

"He devises his own ways of doing good, but always with modest diffidence. One day he came to me in anxious sorrow and said: 'What is right? What ought I to do? There is Owl Voice over there, and he is angry with his wife. Some Indians have gone to him and said she has behaved as a bad woman, and I fear he will take her life before sunset. The chiefs are there, and the camp is quite excited. What I want you to tell me is—What is my duty? May I not go and try to bring peace?' I said 'Yes—what else could you do?' Paul looked relieved; but he showed me how the uncertainty had come into his mind. 'I asked Axe first,' he explained, 'and at once Axe said: "We believe in Christ and God, and we do what is right. But those heathen people are different. Let them alone." But I then said to Axe:

"By what we hear about Jesus Christ, I think He would go and try to make peace."' I said to Paul: 'Go, please, by all means; and I do hope you will be successful!' He went; and the sequel I heard next day from one of the chiefs who was present—Big Road, who became a Christian later on. Big Road came to me and said: 'This young man of yours is a wonderful fellow.' I said: 'Why?' He said: 'We have never seen anything the same as this in our lives. We all like him.' I said: 'Tell me of it.' Big Road said: 'He came into the tent yesterday, and went up to Owl Voice and held out his hand. Then he stepped up to Owl Voice and kissed him, and said "My brother, I've come to you as a friend, as a servant of the God above us, because I believe that Jesus Christ would do what I am trying to do if He were here. I want to restore peace between you and your wife. I want to tell you that I don't believe one word of what you have been told about your wife. I want you to say you will forgive your wife what you thought was wrong, and that you will let her come to you, and you will kiss her in the presence of these chiefs, and say it is all right." Owl Voice looked on the ground and was silent a long time. Paul continued to speak to him, and said: "Well, my brother, you will do what I ask? Let me bring your wife to you that you may kiss her." At last Owl Voice looked up in your young man's face, and said: "Well, I believe you are right." Then the young man went and took the girl by the hand and brought her to Owl Voice, and said: "Now, kiss her." Owl Voice looked up and kissed his wife, and said: "It is all right." Then he turned to the chiefs and said: "You can all go," and they went.'"

SUN DANCE OF BLACKFEET INDIANS

Canon Stocken told me next about Old Wolf Collar, the veteran who once was a mighty warrior, a great hunter of the buffalo, and the "medicine man" of paramount fame and influence in the tribe. "When he became a Christian, in March, 1899," the missionary related, "Old Wolf Collar was nearly sixty years of age—older than any other man I had baptised. At that time, as I afterwards found, he had not given his whole heart to Christianity. He had been impressed by religion as the power that made white men lead good lives. He had become a Christian for the sake of material advantages. Well, one day I was trying to make my congregation see that if Christianity were anything at all to a man, it went right down into his inmost life, and he must cherish no evil thoughts and attempt to keep no secrets from God. That caught Old Wolf Collar; and he came to me in sorrow, bringing a collection of the charms that had been part and parcel of his former distinction as a medicine-man. At his conversion he had surrendered a number of such things into my hands, and I had not suspected that he was keeping some back. Full of penitence, he now said he did not know the religion of God was so searching. 'I've still got these things,' he said. 'Take the whole business,' and he handed me all those charms, some of which I afterwards sent to the museum at Banff, others going to England. Having unburdened his conscience in that way, the dear old fellow breathed more freely. 'Now, go ahead,' he said, 'and tell me all the things you know about God.' From that time Old Wolf Collar has been full of zeal. You will have heard that the one trouble with the Indians is that they are lazy. But Old Wolf Collar is not lazy. In those days we had Miss Collings with

us, and at his eager request she taught him to play the auto-harp, and she taught him the syllabic system. I ought to tell you that these Indians had no literature of their own. They had to depend solely upon memory for their knowledge—a fact, by the way, that made the missionary's responsibility a very heavy one, since, if there were any laxity on his part in presenting a truth, the consequent misconception in their minds went uncorrected by the printed Word. That danger has largely passed away with the dissemination of the syllabic system, whereby the Blackfoot language is reduced to terms that the hand can write and the eye can read.

"Old Wolf Collar proved a quick pupil, and as soon as he had obtained a tolerable mastery of the system he got together of an evening some ten or twelve young Indians, to whom he imparted his new knowledge by writing the characters again and again on a large sheet of paper. It was good work well begun; and to-day, I think, there isn't a single family on the reservation that has not at least one member who can read and write the syllabic. With the aid of the system, Old Wolf Collar taught, and partly prepared for baptism, several men to whom I had seldom, if ever, spoken personally; and when he thought their preliminary instruction was sufficient, he sent them up to me.

"I will give you an idea of what the old man's faith was like. But first you must know that originally he had two wives, and when he became converted he put one away, providing for her, and married the other by Christian rites. He won all his family to Christianity; and then a series of terrible bereavements befell him. First, one of his two daughters

died, then his only son, after that his second daughter, and finally his wife, so that the old man was bereft of all who were near and dear to him; though, presently, with my concurrence, he married the wife he had put away, and she is still spared to him. What I was going to tell you was this: At the time of his heavy bereavement I visited him one day, when he took his pipe from his mouth and said: 'Why is it, do you think, that a man, when he becomes a Christian, should have sorrow and trouble which he never had before? Before I became a Christian I had all my family complete, and I had no sadness. Now I have all this trouble to bear. What is the reason?' I said: 'You are not the only one who has asked that question. There are lots of problems that we cannot solve. But do you remember what I was teaching you about Abraham?' 'Oh,' he said, 'you mean about offering up Isaac? Ah, do you think that's it?' I replied: 'I'm not saying it is. I don't know. I'm just asking you to bear it in mind.' 'If you think God is testing Old Wolf Collar,' was his reply, 'He won't find I will go back on Him.' Old Wolf Collar is a minor chief, and he exercises his authority wisely, like Running Rabbit, the gentle old fellow of seventy-four who at present occupies the supreme position."

In the case of young men, Canon Stocken explained, the conferring of high tribal rank sometimes reacts prejudicially on character. In this connection he told me more about Axe, to whose personality he had already afforded some clues.

"Young Axe," he said, "used to talk more than others about the Holy Spirit, but I could see he didn't grasp it, and I wished he wouldn't. He was constantly producing his copy of the Scriptures in the

Blackfoot Roman characters, and saying, 'I will read it. That is hard for us to do.' He was very conceited, but very clever—in fact, he had learnt the book by rote. He used to get hold of the bishop, and say: 'I want you to come here and sit down and hear me while I read this.' And very soon he would begin dogmatising. I remember once the bishop made a very useful remark. Axe had said to him: 'What do you think, Bishop—wouldn't it be a good thing if I found out all the evil that is going on in this reserve, and let you know?' 'No, thank you—don't,' said the bishop. 'But why not?' persisted Axe. 'How can we get rid of it unless we get to know about it?' 'Well,' said the bishop, 'did you ever happen to notice that you've got two parts to your eye—an eye and an eyelid? Did it ever occur to you that God gave you eyes and eyelids so that you should see some things, while others are shielded from your vision? We are not to go about and search for our brother's faults. If they are discovered, we must help our brother.'

"Axe was of very powerful physique, and one day when he was engaged in carrying logs, he came to me and said: 'Running Wolf, those of us who work very hard need whisky.' I said I did not think God ever made any constitution that required whisky. 'I know God does,' insisted Axe; 'and if you do the right thing you will keep whisky here and dole it out to me.'

"The Government offered a present of so many head of cattle to those Indians who cared to take them and commence ranching. Axe very promptly stated his readiness to accept as many as he could have; and I think the Government gave him twenty. The chiefs

were in a great state, because they thought the Government would stop the rations, and would believe that the Indians, now they had accepted cattle, would be self-supporting. When the commissioner next visited the reserve he gave through me a message to Axe. It was that the Government were very pleased with him because he had taken cattle and given up gambling, and, therefore, the Government wished to make him a minor chief, and to give him a present of a cook's stove. He was trying to patch up his old stove at the time. Axe said to me: 'Why do the Government look among the boys'—he was about twenty-six at the time—'to find a chief?' I said: 'Partly because you've done what they wish, and you've shown the sort of spirit that they desire to encourage; and partly because, being young, you are likely to be energetic in doing their wishes.' He said: 'I think it is a mistake looking to boys for chiefs.'

"A few months afterwards the commissioner came along and appointed two new minor chiefs—namely, Axe and Calf Bull, who was another young and progressive Indian. Axe very soon began to show his importance. He felt that, since the Government wanted him to carry out their wishes, it would, of course, be the right thing to suppress evil. He was anxious to use compulsion and violence in recruiting the Church membership, and he was so troublesome about it that someone from the south camp went to the Indian agent and said that Axe was trying to make people Christians by force, and at my instigation! His own attendances at church, I am sorry to say, have fallen off since he became a minor chief, and he has not been to Holy Communion for two years."

Then the conversation reverted to Paul, who, I

learnt, has preached the Gospel among his people with untiring zeal and remarkable success. He had an early trial, it seemed, in his young wife's indifference to Christianity. "She fell grievously ill," Canon Stocken related, "and we had her brought into our house, a parlour being turned to account as the sick-room, where Paul and the invalid's mother took it in turns to watch by the bedside. One night the dying woman had a beautiful dream, and when she awoke in the morning she said: 'Your changed life, Paul, and what God has shown me in a dream, have made Christianity real to me, and I've made up my mind to become a Christian.' It was a great joy to Paul and to all of us; and on the following Sunday (May 20th, 1898) she was baptised. We had a solemn little baptism service in our sitting-room. My wife had a dear friend from Japan staying with us, and she helped. The poor invalid, though very weak, insisted on getting up. Her Indian name was Pretty Nose. We baptised her Sarah. When Paul was leading her back to bed, he stooped down—she was a short woman—and kissed her, and said: 'Never mind; it won't be for long; we shall meet again.' She did not live long after that, and when the end came she spoke very cheerfully of her hope in Christ and her freedom from fear.

"About two months later Paul had a dream that deeply impressed him. He was sitting alone in his brother's house, reading in the syllabic, when he must have fallen asleep, for a vision came to him of a figure standing in the open doorway. It was that of a young woman wearing a loose yellow garment, which was caught together at the neck with a brooch that sparkled like a star. Her hair fell over her shoulders, and her face was radiant. She smiled and said: 'Paul, don't

you know me? Don't you know your own wife?' He jumped up to seize her hand, and she continued: 'God has sent me to you because He loves you, and He bids you to persevere. Do not be in doubt about me, for I am very happy.' Then she vanished.

"And now," continued Canon Stocken, "I must tell you about Naomi, who is Paul's present wife. She was the widow of Black Boy, who was Big Road's brother. One day she said to me: 'My husband, Black Boy, had wanted to become a Christian, but he was never asked by a missionary.' It was sad to hear this when Black Boy was dead; but I had made it a rule never to ask any Indians to become Christians. There was always the fear in my mind that they might consent, not through any earnest desire on their own part, but because they wished to please. It has always seemed to me that one must teach them all one can, and point out the evil of sin, but that the actual request for baptism must come unprompted from their own hearts and lips.

"When Black Boy had been dead six months or so, Handsome Otter Woman—that was the name of his widow—said to me: 'Running Wolf, if I marry again, I'm going to marry a Christian.' Later, she said: 'Paul is the man I want to marry.' Paul had said: 'I'm never going to marry again; I'm just going to work.' She kept sending messages to Paul to say she would like to marry him; and Paul eventually agreed, because his brother Timothy was so keen for it. Indian marriages are usually arranged by relatives, the principals having very little voice in the matter. Thus, a mother or father will say to a chief: 'My girl is old enough to be married. Whom do you suggest?' The chief might say that So-and-So would make a good

son-in-law. Then the question would arise: How many horses might the girl's parents expect from the family of the suggested husband?

"After Paul and Handsome Otter Woman were married, their tempers rather clashed. Paul would come round to my house, and be very silent, and then say: 'H'm! My wife has gone away.' 'What is the matter?' I would ask. 'She gets most dreadfully cross,' he would tell me; and then take his departure. In a little while his wife would be sure to arrive, and explain: 'Paul is so dreadfully cross, you know.' 'Yes,' I would point out, 'we all have our failings; but we must learn to control ourselves. You can do so if you try.' After one or two little tiffs of that sort, they settled down to be a most affectionate couple. In the work of spreading Christianity among their people, they now labour hand in hand, helping and stimulating one another. After she was baptised—receiving the name of Naomi—it was her eager wish to become a Bible-woman. In those days she could not read the syllabic system; but she would not let that temporary disability stand in the way of her work. She got me every week to prepare brief notes of some truths, and these she caused to be read over and over to her until she had the words by heart. In that way she entered upon labours to which she has since devoted her life. Naomi's teaching, sympathy, and self-sacrificing ministrations have indeed been a blessing to the Indian women on this reserve."

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What need of further evidence? The red man is revealed as in all essentials like unto the white man, with a conscience responsive to the knowledge of good

and evil. Great profit has crowned the self-sacrifice of the men and women who have devoted their lives to Canada's aborigines. To a triumphant end have the C.M.S. and other bodies endured anxieties and sustained the financial burden. Human blessings now reward the self-denial of their devoted subscribers. Already in the Indian reserves missionary effort is giving place to ministrations purely pastoral.

Concerning the present state of Fenimore Cooper's scalping savage, two words remain to be spoken. The missionaries having made him a Christian, the Government is making him a farmer. It has been up-hill work, necessitating much thought and patience, a large staff, and heavy expenditure. But at last the red man is successfully growing fruit in British Columbia and raising grain and stock in the Prairie Provinces.

As to one matter, however, still his mind urgently needs enlightenment. He must be taught the paramount importance of thoroughly ventilating his dwelling, alike in the winter and the summer. For, alas! the tribes suffer a heavy mortality from consumption, whereof the preventive and cure is fresh air.

CHAPTER XVI

NORTHERN ALBERTA

THAT part of Saskatchewan (more than half the province) lying north of occupied, or at any rate surveyed, territory, I have been tempted to describe as "Unknown Saskatchewan"; and certainly the clues we possess to its character are slight, even though they carry a definite and comprehensive assurance of the country's suitability for settlement.

Concerning the northern half of Alberta, the word "Unknown" would be comparatively inapplicable. In this case chance has, I find, provided us with a good deal of information. Nay, as will be seen, we have clues to agricultural possibilities in regions far to the north of the northern boundary of Alberta.

It is strange how persistently the public imagination goes astray concerning matters of latitude. Nine years ago I found Calgary shrugging its shoulders over a city called Edmonton, situated some two hundred miles to the north. Daring pioneers up there were understood to be making praiseworthy efforts in the direction of grain-growing; "but no, sir," a farmer of the Calgary district solemnly assured me, "it isn't reasonable to suppose crops'll growth that far north." It will, I think, be superfluous to mention that last year, on visiting Edmonton—healthy, handsome, and sunny Edmonton (which is between 53° and 54° latitude)—I

EDMONTON: DISTANT VIEW FROM STRATHCONA

EDMONTON: EAST END OF JASPER AVENUE

found the district producing immense quantities of the best quality hard wheat that averaged over twenty, and sometimes reached forty, bushels to the acre. "You see," as a local expert pointed out to me, "the Edmonton district is just right for growing things. Everything is in our favour. We've got much longer days than people have in the south. Why, at midsummer the sun is shining for eighteen hours a day, and that lets the crops go ahead fine. Then, too, we're particularly lucky in having such wonderful, rich soil. Added to that, we can always count on enough rain—and not too much."

Those complacent words applied to the district immediately north of Edmonton—in other words, to what is practically the limit of settled Alberta. I will now invite the reader to ascend a sort of ladder of latitude.

Our first short stride takes us to an old post on the Lesser Slave Lake, which is nearly two hundred miles to the north-west of Edmonton, the line of latitude (which is the special matter that concerns us at the moment) being something less than one hundred and fifty miles to the north. I find travellers and missionaries unanimous in testifying that wheat, oats, barley, potatoes and various kinds of vegetables are grown to perfection at Lesser Slave Lake.

We now mount to Dunvegan (lat. 55.9°), about fifty miles further north (and one hundred miles to the west), concerning which place we learn from the Rev. D. M. Gordon that, on going there in 1880, he found a great variety of vegetables growing, including cucumbers; while he was informed that wheat was raised at the post as far back as 1828.

Another northward step of about fifty miles brings us (far away in eastern Alberta) to Fort McMurray (lat. 56.7°), on the Athabasca River; and concerning Fort

McMurray it is recorded that "Professor Macoun, on the 8th of September, 1875, saw tomatoes, cucumbers, wheat and barley under cultivation, together with all vegetables found in kitchen gardens of Ontario. He spent ten days there, and obtained specimens of wheat and barley which have astonished everyone to whom they were exhibited. Many of the ears contained one hundred grains, and the weight of both wheat and barley was nearly ten pounds above the ordinary weight per bushel. These grains had been raised on soil comparatively poor—very poor for the district—and lying only a few feet above the level of Lake Athabasca."

So here we are over two hundred miles to the north of Edmonton, and reports of vegetation tend to become more, instead of less, satisfactory.

Next we jump an interval of about a hundred and fifty miles, and pause at Fort Chipewyan (lat. 58.7°), where, I learn, Professor Macoun obtained in 1875 fine samples of wheat and barley, the former weighing 68 lbs. to the bushel and the latter 58 lbs. He learnt that at a French Mission, two miles above the Fort, oats, wheat and barley were all cut by the 26th of August. But a still more remarkable fact has to be recorded. The Rev. D. M. Gordon was in a position to say that samples of wheat and barley raised at Fort Chipewyan were sent to the 1876 Philadelphia Centennial Exhibition, where they won a medal in open competition with the world.

Let us take a further stride, to a point some two hundred miles further north—to Fort Providence (lat. 61.4°). Here we are about one hundred miles north of the northern boundary of Alberta; and perhaps this is as good a place as another to mention that the province of Alberta is considerably larger than France or Germany. Please note how far we have travelled—Fort

Providence is over seven hundred miles north of Calgary. And what do we find at Fort Providence—Polar bears and perpetual frost? Not a bit of it. Listen to this quotation from a report by Mr. Elihu Stewart, who, as superintendent of forestry for the Dominion of Canada, visited those northern lands in 1906: "On July 15th, the garden at Fort Providence contained peas fit for use, potatoes in flower, tomatoes, rhubarb, beets, cabbages and onions. Besides vegetables, there were cultivated flowers and fruit, such as red currants, gooseberries, strawberries, raspberries and saskatoons. But most surprising thing of all was a small field of wheat in the milk, the grain being fully formed. This was stated to have been sown on May 20th, and it was harvested before July 28th—slightly over two months from sowing."

Oh, the marvellous potency of the long days of sunshine. What a rush there will be for the Great North Lands—that agricultural El Dorado—when the world understands their value.

No further evidence is, I think, needed; but, by way of completing the ascent of my "ladder," I will invite the reader to move in imagination some thirty miles nearer the North Pole, to Fort Simpson (lat. 61.8°)—the most remote point from which I have been enabled to glean any gardening news. Mr. Hardisty, the late chief factor in charge of the Hudson Bay post, told Mr. Macoun that melons, if started under glass, ripened well there, frost seldom doing them harm. Barley, Mr. Hardisty added, always ripened at Fort Simpson. Another witness is accessible in the person of Mr. William Ogilvie, the explorer. "While at this post," he reported, "we enjoyed the fine potatoes, carrots, parsnips, cabbage and peas grown in the Hudson Bay

Company's garden. They were as large and as fine flavoured as the best in any part of the country."

The facts being as I have stated, no wonder some enterprising pioneers have "gone in advance of the railway," and settled in that part of the Peace River district lying around Lesser Slave Lake and to the west of it.

News of the high farming value of the Great North Lands will, I think, come upon the public as a surprise. Yet, as has recently been pointed out by Mr. R. E. Young (Canada's Superintendent of Railway Lands), the truth of the matter has for long been demonstrated inferentially by the experience of another quarter of the globe. On a map of Western Canada, Mr. Young has superimposed the highly productive Russian province of Tobolsk, in its accurate position as to latitude; and, behold! the main southern boundary of Tobolsk occurs (on the map of the Dominion) a good deal north of settled Southern Alberta, while northern Tobolsk extends right up the Canadian mainland, crosses Coronation Gulf, and spreads some way over Victoria Island. Recent statistics about the Russian province are not available to me; but in 1906 it was supporting a population of over a million and a half, in 1907 it was producing 30,770,000 bushels of wheat, rye, barley and oats, it raises many million head of live-stock, and from one district alone (Kurgan) there was exported in 1902, largely to Great Britain, 19,711,446 lbs. of butter. I may add, on the authority of the British Blue Book from which the last-named figures are taken, that dairy-farming in Tobolsk promised, at the date of publication (1905), a marvellous development.

As I have already mentioned, certain enterprising

BOW RIVER, ALBERTA PROVINCE

and discerning mortals have gone into the productive North Lands ahead of the locomotive. Mr. Alfred Von Hamerstein, for instance, who was on his way to the Klondike in 1897, changed his mind, and opened a store at Athabasca Landing. He traded with the Indians, and it is interesting to learn that his customers were keen to buy different kinds of seeds; so he added flower-seeds to his stock, "and some lovely flowers were raised."

Afterwards he made extensive explorations up and down the country, and took up with mining and with petroleum-boring.

Asked about the Peace River Valley, Mr. Von Hamerstein said it is "a good country for agricultural settlement—as good as any country in Alberta." He described both the Athabasca and Peace River regions as "marvellous for the growth of small wild fruit," adding: "At the end of July, or the first part of August, there are strawberries, followed by raspberries and blueberries. Then come the saskatoons, choke cherries, white plums and berries of every description. They are found all over the country and they all have a very nice flavour indeed."

From this gentleman's experiences I take the following interesting facts: He has seen trees in the neighbourhood of McMurray that would make 1,000 feet of timber. The missionaries and natives catch a quantity of fish, including a creature called the "inconnu"—the unknown—which weighs from 40 to 50 lbs. Sometimes on a walk of fifteen miles he has seen as many as twenty or thirty bears, which are quite harmless. The long list of Alberta quadrupeds includes the wolverine—a gigantic skunk with stripes on his back and known out West as "the devil." Among the birds are several

varieties of the eagle, a little wild canary, and the Canadian jay, commonly called "the whisky jack." Along the northern boundary of Alberta, around Salt River, the cariboo, the moose and other game congregate to lick the salt, "and there are quite a few buffalo" to be seen. Ducks and geese assemble around Lake Athabasca in enormous numbers, "and when killed their stomachs are found full of cranberries."

Mr. Von Hamerstein has done a good deal of gold-mining in the Athabasca and Peace River districts. "I took out gold," he said, "at a little bar right opposite the mouth of the Lesser Slave River in the Athabasca. I worked it for part of two summers. I would take out enough to last me for the winter and then quit. It is hard work." He mentioned that the Indians have "gold and diamonds on the brain," and they have brought him "rocks containing very nice garnets, but they were very mysterious about them." He explained that there is "very good gold-mining" on the Peace River, a little below Battle River. "But the gold is so very fine that for every dollar you save there, about four and a half go away." He also referred to many good seams of coal, and mentioned that one season, at Fort McKay, he "took out about twenty tons right on the river bank." It was a good quality of bituminous coal. At McMurray "150 feet of salt was found," and the Hudson Bay people "come down and take it with shovels."

With regard to natural gas, Mr. Von Hamerstein ventilated a grievance of the backwoods. It seems that an experimental bore-hole at Pelican Portage struck "a very large volume of gas, and the well has never been plugged." He considered it an actual sin to leave it like that, as "the gas has now been escaping for eleven

years." It is robbing the whole district of gas that might be used in the future. It seems that the Government prospectors who made the well were boring for petroleum. The tremendous flow of natural gas interrupted their work. They left the gas alight, and returned to the spot in the following year, hoping the flow would by that time be exhausted. Instead, they found it still burning; so they went away, and never returned; and during the eleven years that have since elapsed it has continued to burn. Once when Mr. Von Hamerstein went there, the column of flame was 40 feet high; afterwards he found it had been reduced to 18 or 20 feet.

He mentioned that he has expended more than £12,000 in "punching holes through the ground." There is no doubt in his mind that "petroleum will be found all through the country from Athabasca River to the Peace River." It seems that, in connection with their prospecting, mining and boring operations, Mr. Von Hamerstein's parties use a good deal of natural gas. "We light our camps with it," he said, "and do our blacksmith's work with it, and it comes in very handy."

Mr. Von Hamerstein remarked: "As far as petroleum is concerned, I have all my money put into it, and there is other people's money in it, and I have to be loyal. As to whether you can get petroleum in merchantable quantities, that is a matter about which I would not care to speak. I have been taking in machinery for about three years. Last year I placed about $50,000 worth of machinery in there. I have not brought it in for ornamental purposes, although it does look nice and homelike."

He explained that there are sulphur beds and springs

between McMurray and Lake Athabasca, and on the Clearwater River first-class medicinal springs. "It is a very nice, picturesque country," this interesting witness added, "and the natives go up there and doctor themselves."

CHAPTER XVII

NEW TRANS-CONTINENTAL LINES

OFTEN the miner, and sometimes the farmer, enters a territory before trains have superseded the canoe and the ox-wagon; and in our chapter on Northern Alberta we have glanced at the romantic life of a pioneer who, if lacking modern means of access to his market, has a delightfully free hand to tap the overflowing natural resources of the landscape surrounding him. A finer career that, I think, for young and muscular manhood than the daily sitting on a stool in smoky London City. But it is for the adventurous, resourceful, self-contained men who need no companions but their own healthy thoughts.

There is another and more popular phase of pioneerdom—that of the early settlers in a district which the railway will reach, not some day, but soon; and in this connection—let me add in a warning parenthesis—one thinks of bachelors with energy and forethought rather than of middle-aged men with nerves and a family. The farming forerunner is apt to figure in a few years as the "old-timer" with a big balance at the bank and some stories worth listening to. And note that, when he has made good progress with his tillage, the construction gangs of the on-coming track will pay high rates for his accumulated store of grain, besides offering him opportunity to earn substantial wages with his horses, his pick and his shovel.

I need attempt no enumeration of the railways being laid in Canada To-day, and to be laid in Canada To-morrow. But I will write about two of them, and about regions they will open up, since the information may well serve the reader's personal interests.

An earlier chapter showed how the construction of the Canadian Pacific Railway put a belt of prosperous civilisation across Canada. There is still only that one completed trans-continental line within the Dominion. But two others are in progress—two others that promise national advantages comparable with those that followed the making of the C.P.R. The one project—the Grand Trunk Pacific—was deliberately conceived under Government auspices; the other—the Canadian Northern—sprang spontaneously from the brains of two sagacious men.

From 1888 to 1896 no railways were constructed in Western Canada. During that period the country was "catching up," in the matter of development, to the magnificent transit facilities provided by the C.P.R. In 1889 there was a promise of new transportation enterprise, powers being granted to a "Lake Manitoba Railway and Canal Company." But for seven years its charter remained unused. Meanwhile, east of Lake Manitoba, a premature beginning was made with a railway to connect Winnipeg with Hudson Bay—the momentous development which, as explained in an earlier chapter, is now about to occur. The next fact to be noted is that the inhabitants of Western Canada included two men—Mr. W. Mackenzie and Mr. D. D. Mann—who had helped as contractors to construct the C.P.R., and who, sharing an enthusiastic faith in the prairie country, became business partners. They took over the dormant charter, and made a line into the

Dauphin Valley; and such was the humble birth of the great system subsequently to be christened the Canadian Northern. The fortunes of that company are to-day guided by Sir William Mackenzie and Sir Donald Mann, acting in association with Mr. D. Blyth Hanna, who was in charge of the initial line from Gladstone to Dauphin, which was inaugurated in December, 1896.

The last-named gentleman is indirectly responsible for the following record of an incident in the early life of a great undertaking: "A train on which he happened to be travelling to Dauphin ran over a heifer and broke her leg. On the train also were a couple of butchers on their way to a construction camp at the then terminus of the line. Mr. Hanna stopped the train, had the butchers kill and dress the heifer, whose carcase, thirteen minutes after the accident, was loaded in the baggage car, and was presently sold to the contractors. The hide was sent to Winnipeg, the farmer's claim was paid in full, and a profit of four dollars and sixty-five cents included in the first balance-sheet of the railway."

During the past fourteen years the Canadian Northern has grown at the rate of a mile a day. To the east, the Manitoba capital was linked with Port Arthur, and of the 1909 crops the Canadian Northern carried over 37,000,000 bushels to the head of navigation. The expansion of the system in the plains is proceeding upon a plan destined to result in five principal lines running east and west of Winnipeg, with certain north-westerly deflections that will feed the new Hudson Bay route. The Canadian Northern, indeed is now opening up an acreage of land no less fertile, and more extensive, than that which has given Manitoba

and Southern Saskatchewan their pre-eminence in wheat-growing.

The British Columbia Government guaranteed bonds up to £7,000 per mile to secure the expansion of the Canadian Northern from Alberta to the Pacific coast. On the passing last year of the sanctioning Act, construction was promptly started from the mouth of the Fraser River at New Westminster, so that, as provided by the statute, British Columbia shall receive its second direct communication with the Prairie Provinces in the year 1914—the year of the proposed World's Fair at Winnipeg.

The Canadian Northern Pacific will ascend the Fraser River cañon to the Thompson River, which it will follow to Kamloops. Thence it is to strike north-westerly through the valley of the North Thompson, reaching Edmonton by way of the Yellowhead Pass, which is the easiest route through the Rocky Mountains. From Edmonton the track is already advancing to meet the British Columbia section.

Deflecting from Fort Frances, two hundred miles east of Winnipeg, the Canadian Northern has entry to Duluth, the principal United States port on the Great Lakes; and therefore the Pacific extension will afford connection between Puget Sound and Duluth on a mileage almost identical with that of the Northern Pacific—the pioneer railway across the north-western States—with the advantage that, whereas the Northern Pacific has to climb three summits (of which the highest is nearly 6,000 feet), the Canadian Northern Pacific has to climb only one summit (a mere matter of 3,700 feet).

The project for connecting the head of Lake Superior with Canada's eastern coast was undertaken piecemeal. By far the greater part of that distance has been covered,

BUILDING THE G.T.P.R.: THE TRACK-LAYING MACHINE AT WORK

and, as I write, remaining gaps are being surveyed. To the question, "When will the Canadian Northern extend as an unbroken system between the Atlantic and the Pacific?" I have received this answer: "A very few years will see completion."

Meanwhile the Canadian Northern, following the example of the C.P.R., has inaugurated a superb trans-Atlantic steamship service between Bristol and Canada. A fleet of steamships on the Great Lakes is also controlled by the company that owes its greatness to the genius of three men.

The Grand Trunk Pacific Railway Company, incorporated by an Act of 1903, is under agreements with the Federal Government for the construction and operation of a railway, wholly within Canadian territory, extending from the Atlantic to the Pacific. Its main line is to be of an estimated length of 3,600 miles, and there will be several branches of considerable length and importance.

This system, while traversing what is believed to be the richest mineral region of Eastern Canada, will open up an attractive area of Quebec Province and pass along the great clay belt in New Ontario (where a section has already been constructed, in connection with the Provincial Government's line that affords access to the rich silver and nickel districts).

Concerning the prairie section lying between Winnipeg and the Rocky Mountains, Professor Thomas Shaw, formerly of Ontario Agricultural College, remarks: "The lands are of three kinds. They may be classed, first, as having special adaptation to the production of grain; second, as having such adaptation to mixed farming of which live-stock will form an important feature; and, third, as being mainly adapted to the

production of live-stock only. The third class is not very large, the second is much larger, and the first is by far the largest."

"The splendid native grasses," observes Mr. E. S. Bayard (editor of *The National Stockman and Farmer*), "the good grain, the apparently favourable conditions for the growth of alfalfa and other clovers, peas, vetches and barley, and the abundance of water, all look good to a man who is interested in live-stock." "The country pierced by the Grand Trunk Pacific in the Canadian West," we learn from Professor E. E. Faville (editor of *Successful Farming*), "presents opportunities not to be excelled in any part of Canada." And this is the testimony of yet another agricultural editor: "Conditions along the Grand Trunk Pacific are generally suitable for grain-growing, including a rich soil, reinforced with a vast quantity of vegetable mould, a sufficiency of rain during the planting and growing season, bright sunshiny days during the ripening season (hastening maturity), an absence of rust (due to the dry period at time of harvest), and an apparently total absence of all insect pests."

In May, 1906, Professor J. Macoun, of the Government Geological Survey, received instructions to make an inspection of the country, on both sides of the line, between Portage la Prairie and Edmonton. From his report I take the following facts:

All the land from the Assiniboine westward to Touchwood, and over twenty miles beyond, is more or less covered with timber, although there are often great stretches of prairie interspersed with it. Ponds, marshes, rich bottoms and numerous lakes are scattered without order throughout the country. Everywhere the soil is rich—chiefly black loam. At the Indian mission

near Touchwood, Mr. Macoun found excellent wheat, and in the garden at the post all the vegetables were of the highest quality. There is practically no bad land. On these extensive prairies, the settler's first work is the erection of a turf house and the digging of a well; then he is established. South of Tramping Lake, many houses could be seen. The settlers met with were invariably from the United States, and all seemed pleased with their prospects.

I may mention that the company, who have no agricultural land for sale, published last June a list indicating the situation of 8,000 free homesteads available along the line.

As to the mountain section (which is now being rapidly pushed forward from both the east and the west), the country it traverses is said to be unequalled in North America for natural resources. Where the conditions do not lend themselves to agriculture, there is mining or lumbering to be developed, and in the rare districts in which those possibilities fail, there is at least trapping and hunting.

Last year I spoke with members of a party who, on behalf of the company, had just traversed the railway route across the mountains. On the beauty of the country they could not sufficiently dilate. At Yellowhead Pass, they said, you enter a vast, wild, unsubdued Alpine wonderland. It has been dedicated for ever to the use of the nation as the Jasper National Park—an expanse of indescribable grandeur, with an ocean of majestic virgin peaks comprised within the numerous well-defined ranges, snow-capped and glacier scored, which tower above a continental watershed wherein are the headwaters of five mighty rivers—the Saskatchewan, the Athabasca, the Thompson, the Columbia, and the

Fraser. Also I heard of forest-clad slopes, flower-strewn passes, impressive solitudes, vast snow-fields and exquisite lakes.

Far above the explorers' heads was Roche à Miette —an imposing, sphinx-like head with a swelling Elizabethan ruff of sandstone and shales. To the east the party saw a cluster of mineral springs, two of which boil out of a mountain side in a wild secluded little valley, and have a temperature of 116 degrees.

Farther on they saw Mount Geikie towering inaccessible, its summit lost in azure at a height of 11,000 feet. To the south-east lay Simpson's Pass, in which the mighty Athabasca is born in a region of perpetual snow and a succession of glaciers. Within that pass is the "Committee's Punch Bowl," whereof Sir George Simpson has written: "The relative position of the opposite waters is such as to have hardly a correlative on the earth's surface, for a small lake sends its tribute from one end to the Columbia and from the other to the Mackenzie."

Presently they arrived in sight of Mount Robson, the King of the Rockies, which had been recently scaled by the Rev. G. R. B. Kinney, of the Alpine Club of Canada. Impressions of that eminence must be given in the words of its hero. "The first party of white men (of which I was one)," says Mr. Kinney, "ever known to reach Mount Robson was organised by Dr. Coleman, of Toronto University. . . . Our first camp was in the deep shades of the cedar and hemlock on the Grand Forks, within a mile of where the branch coming in from around the north of the mountain joins the one from around the south. Because of my roving disposition, I became the explorer of the party, and my first discovery was that of the beautiful lake that bears

my name. Nestling at the very foot of Mount Robson on the west, walled in on every side by majestic glacier-bearing peaks, this forest-fringed emerald gem, sentinelled by the highest and grandest mountain in all the Rockies, will rival Lake Louise for splendour. The feeling of being the first white man known to walk its shores, and looking for the first time on the glories of its brand-new wonders, filled me with a sense of awe."

The party failed to climb Mount Robson in 1907, so they returned to the task in the following summer, when again their efforts were unavailing.

Hearing in 1909 that an American party were about to seek the coveted prize, Mr. Kinney got together a pack train of three horses and three months' provisions, "and left Edmonton alone to capture the mountain, hoping to pick up a companion on the trail." At the place where he swam his horses across the Athabasca, he fell in with Donald Phillips, a young Ontario guide, and enlisted his companionship. They worried their packs to an altitude of about 10,700 feet, where they succeeded in making a bed on a snow-covered shelf. "For hundreds of miles," says Mr. Kinney, "the peaks lay at our feet. Scores of miles of the Fraser valley lay open below us like a map, and the mighty Fraser was but a tiny, crooked thread of silver. Then the valleys disappeared, and we were alone with the stars and the snow-white peaks and the grinding avalanches.

"Friday, August 13, dawned clear and cold, and by the time the sun rose we were on our way to the peak. The many cliffs we had to climb were only from ten to a hundred feet high, but those hard, smooth, icy slopes between were tipped at an angle of from fifty to seventy degrees. One slip on the part of either of us

meant a fearful slide to death thousands of feet below. The storm-clouds of sleet swept down and engulfed us while we were at little more than eleven thousand feet altitude. We had not enough provisions for another two-days' climb. This was our last possible chance, and we despaired of ever reaching the peak. Fortunately, though the clouds were very dense and cold, but little snow fell. The storm was a blessing in a way, for though it spoiled our chance of getting pictures, it shut out of view those fearful sheer slopes below.

"In five hours of steady work we reached the peak. The clouds broke open for one brief minute, revealing to us a wonder world, with the Fraser more than eleven thousand feet beneath us; then the storm swept in worse than ever. It took us seven hours to return to our 'highest-up' camp, so dangerous had the softened slopes become on account of the storm, and by the time we reached our camp in the valley the climb had cost us twenty hours of hard work—but we had finally captured Mount Robson for our country and the Alpine Club of Canada. Our provisions were gone, we were hundreds of miles from civilisation; so for two weeks we lived on what mountain-gophers and birds we could get. I finally reached Edmonton September 6th, only to find that Cook and Peary monopolised the interest of the world."

But, to continue our progress towards the Pacific, I learn that, seventy-five miles from the sea, there occurs a marvellous palisade of corrugated and terraced mountains reaching a height of 6,000 feet. Then comes a cañon one mile long with sheer walls a hundred feet high; and through that majestic avenue flows a mighty torrent. And so we continue along the Skeena River—a valley of enchantment—until we reach the new ocean

SHAWATLANS LAKE AND FALLS, PRINCE RUPERT

WATER FRONT, PRINCE RUPERT TERMINUS, G.T.P. RLY.

port (Prince Rupert) that will be created by the Grand Trunk Pacific.

Situated 550 miles north of Vancouver, and forty miles south of the Alaska boundary, Prince Rupert occupies a beautiful site, and, it is said, nature has provided that future city with the finest harbour on the Pacific coast—large, land-locked, with deep water, no shoals, and an absence of strong tidal currents.

Steamship services from Prince Rupert will shorten by two days the traffic between Europe and Asia. To this new port will come the ships of the Seven Seas.

CHAPTER XVIII

THE STORY OF THE SALMON FISHERIES

To compare the production of a small but old country like Great Britain with the production of a large but new country like Canada is to find oneself confronted by comic statistics. For a beginner, the daughter is doing very well with her large farm of nearly four million square miles; but the mother is doing so much better with her mere potato patch of 121,000 square miles, that the two sets of results, when placed side by side, almost smack of Gilbert and Sullivan.

True, the daughter has got ahead in wheat-growing, and also in timber (the old lady, in the latter case, having allowed her stock to run low). But in other matters the result is controlled by the greater number of hands at work on the potato patch. In comparing the results achieved by forty-five million people in a little country, with the results achieved by eight million people in a large country, we perceive what the political economist means when he says wealth is labour. In the making of wealth, natural resources are necessary. They are the bases on which human effort builds. But natural resources without population are of no immediate value. To the starving, isolated man half a dozen penny saveloys would be greater riches than a mountain of gold.

According to the most recent reliable figures acces-

GOVERNMENT BUILDINGS VICTORIA, B.C.

TOURISTS IN VANCOUVER CITY, B.C.

sible to me at the moment of writing, the fisheries of England and Wales (leaving Scotland and Ireland out of the reckoning) represent a greater annual money value than the fisheries of Canada—a fact that assumes considerable significance in the light of two other facts, namely, (1) that the fisheries of Great Britain have been severely depleted, and (2) that the fisheries of Canada are the largest and most prolific in the world. Great Britain, it will be noted, is the richer in caught fish; Canada is the richer in uncaught fish. In other words, Canada has more fish than Great Britain, but Great Britain has more fishermen than Canada.

The remarkable results secured by the old lady—to revert to the personal metaphor—are due to a comprehensive thoroughness of effort. Her luggers go in fleets to all the sandbanks—their trawls search each estuary that is likely to harbour a pair of soles or a pint of shrimps. At low tide the old lady examines her mud shores for every wet and glistening periwinkle.

The daughter is not in a position to do that. Her staff of helpers is wholly inadequate to cope with all the occupations and opportunities that crowd upon her. With so many fisheries available, the only ones that get attended to are those that shout for notice. The fish would not get caught unless they practically insisted upon it. British Columbia salmon assemble in such myriads in certain of the rivers that their protruding backs, at times, make a dense mat of fish from shore to shore, almost hiding the water. That statement may look like an exaggeration to the Englishman accustomed to angle all day and secure, peradventure, a couple of small roach as the reward of his patient industry. But the statement describes an actual, familiar sight; and, indeed, the natural resources of

Canada scarcely lend themselves to exaggeration. Again and again I have seen and heard those natural resources not over-stated, but ludicrously under-stated. The mistake is constantly made, if quite unintentionally, by Canadians themselves.

Let me give another instance of a Canadian fish that assembles in force, refusing to be overlooked. I refer to the humble herring. "In 1903"—to quote unimpeachable testimony—"the run of herring was very large. At Nanaimo the fish invaded the harbour in such numbers that thousands were washed up on the beach, like seaweed, by the waves created by passing steamers."

As a matter of fact, the waters of British Columbia are alive with halibut, cod, flounders, anchovies, whales, sardines, shad, oysters, clams, crabs, seals, prawns, and other useful creatures that are more or less neglected by a sparse and preoccupied human population. One of the few fish that happens to receive careful, not to say minute, attention in British Columbia is the sturgeon. It is caught, esteemed, and, as I am officially informed, subdivided into commercial uses according to the following classification:—(1) caviare; (2) isinglass, made from the swim bladder; (3) the flesh—fresh, salted, smoked, or otherwise prepared; (4) oil, which is of great value in the leather industry; (5) fertiliser, made from entrails and scrap; (6) the soft, gristly backbone, with its sheath, which, prepared, is called wesiga, and in Russia is a popular article of diet; (7) the brain and nerve cord, which, when smoked and dried, is considered a great delicacy in China; (8) the back portion of the sturgeon, or dorsal region, is made into balyki; (9) the ventral part, or belly, of the fish is utilised as a food called pupki; (10) a valuable

glue, differing from the isinglass of the swim bladder, is derived from the nose, fins, tail, etc.; and, lastly (11), leather is made from the tough and dense skin. Thus there is apparently no waste in the case of this all-round fish.

With regard to the famous British Columbia salmon, the first fact to be noted is that they are not salmon. They are very like salmon, and they are as good as salmon, if not better; but they do not belong to the genus. In thinking otherwise the pioneer population of British Columbia made one of those little mistakes that are natural and excusable in the excitement of occupying a new country. The fish in question belong, as a matter of fact, to the genus oncorhynchus, of which there are five species, all represented in British Columbian waters—the sockeye, the spring, the coho, the dog, and the humpback. When a mistake of this sort has a sufficiently long start, the correction cannot overtake it. The fish that are not salmon are now recognised as salmon all over the world. Were you to ask your grocer for "a tin of oncorhynchus," you would probably make him jump.

Another fact has to be noted in connection with the great so-called salmon industry. Its historian has not yet put in an appearance. I made that disappointing discovery while talking with Mr. W. H. Barker, president of the British Columbia Packers' Association, than whom, I had been assured, no man in Canada knows more about the catching and canning of oncorhynchus.

"It certainly would make an interesting book," said Mr. Barker thoughtfully, "but that book has not been written."

"You ought to write it," his visitor pointed out.

"I'm much too busy," Mr. Barker declared.

"Well, do please spare just one hour for the purpose now," was my appeal; and getting ready a notebook, I explained that my shorthand would probably be a match for his conversational speed.

"To start at the beginning, then," said Mr. Barker, courteously falling in with this scheme for imparting reliable information to the reading public, "you must know that the pioneer was William Hume, who came from the State of Maine, where his father, a Scotsman, was a fisherman on the Kennebec River. In the early 'sixties William Hume, probably as a result of the gold excitement, migrated to California, where he located on the Sacramento River, and engaged in hunting and fishing.

"An interesting memory of those days has to do with an extraordinary gun that had been specially made for him. It was of unusually large bore, and it took a very heavy charge of powder—altogether an extremely effective weapon against ducks and geese, of which Hume and his partner shot a great many. But one slight drawback to this gun was that it 'kicked' pretty badly, and its owner was always very careful before firing it to protect himself with a thick shoulder-pad. Well, one day Hume went off with a wagon-load of birds for the market, leaving his partner in the shack laid up with rheumatism. It seems that the invalid came limping out into the air, and happened to see a flock of geese. Without a second thought, he took up Hume's gun, quite forgetting about the shoulder-pad and equally forgetting his own infirm condition. He fired. How many geese he killed I don't know, but he himself was knocked sprawling, and on picking himself up he made the delightful discovery that the

rheumatism had completely left him! I have seen that gun in a museum. It certainly looks formidable enough to 'kick' an unwary marksman off his feet. As to the rest of the story, I merely repeat what I heard.

"William Hume caught more salmon than he could dispose of—which unsatisfactory state of affairs he discussed with a man he had known in Maine. This was Mr. Hapgood; and the upshot of their deliberations was that they jointly set to work, with make-shift arrangements, to pack salmon in tins on a scow on the Sacramento River. Such was the beginning of the canning industry that has since assumed such gigantic proportions.

"In the following year Hume and Hapgood migrated to the Columbia River, locating themselves on the Washington side, about forty miles above Astoria. There they started a cannery, packing four thousand cases the first season, the fish being put up in one-pound tins 4½ inches high. They had great difficulty at first in finding a market. A good deal went to Australia and to San Francisco, and the price realised was twelve dollars a case. The demand grew rapidly; other canneries were opened; and Hume's brothers came out from Maine to go into the business. The brothers were George W. Hume (who is still alive, and a very wealthy man), R. D. Hume, and Joe Hume. Each started a cannery of his own; and R. D. Hume's "Crown" brand came to be very well known in the old country.

"Everything was extremely crude at first. The cans were imperfectly packed, and many had to be thrown away. In those days all the processes were done by hand, whereas now, of course, machinery operates throughout.

"The Humes were practical fishermen. As a boy I worked for one of the brothers, and so I am able to speak from personal knowledge. The fish were, and still are, caught in what are called 'gill nets.' These are made from a linen thread known as shoe thread. We used to make the nets ourselves, spinning the twine and using from seven to twelve strands, which we twisted up lightly. With weights at the bottom to keep them down, the nets hang from cotton lines attached to cedar floats. They drift with the tide, and the fish, swimming up the river, thrust their heads into the meshes and then cannot extricate themselves, owing to the twine catching in their gills.

"The fishing is rather hazardous. It takes place at the mouth of the river, off the sand spits, where the water is usually in great commotion. Very good boats are used, but they are often capsized, a number of fishermen being drowned every year. Each boat carries two hands—the net man, or captain, and the boat puller. It is nothing unusual for a boat to capture in one night from two to three hundred large fish varying in weight from 25 lb. to 28 lb. This is the fish that is known on the Fraser River as the 'spring,' on the Columbia River as the 'chinook,' and in Alaska as the 'king.'

"In 1876 Alexander Ewan started below New Westminster to can the salmon of the Fraser River. These are a different variety, their local name being the 'sockeye.' They are without doubt the finest of all salmon for canning, being of a uniform red colour and having red oil. Their flavour is even better when they are canned than when they are eaten newly-caught. The sockeye is much smaller than the spring, running to a uniform weight of six or seven pounds. On the

Fraser River, therefore, the fishermen use a smaller net, made of finer thread, only five or six ply, the mesh being six inches instead of nine.

"Such was the success of the first cannery on the Fraser that fifty have since been erected between New Westminster and the Gulf of Georgia. The season's pack on the Fraser has been as high as one million cases, each case containing 48 lb. of salmon. One million cases would contain from twelve to fourteen million fish."

Mr. Barker then referred to the illusory fears some persons in the Old Country have entertained on the subject of tinned salmon: "There have," he said, "been instances of ptomaine poisoning in connection with various animal foods, including canned fish. But it has been proved on incontrovertible evidence, and to the satisfaction of the highest scientific and medical authorities, that canned fish is absolutely innocuous, and very wholesome, when eaten fresh. The process of canning it sterilises it. Ptomaine poisoning is caused by the prolonged action of the air on food that has been hermetically sealed, such as shell-fish, sausages, and canned or bottled foods. We have paid a lot of money to find that out. I will give you a typical instance—a case of poisoning in New Haven, Connecticut. We engaged one of the leading doctors of the New York Health Department to go there and investigate the circumstances. He found that when the tin was opened—in the middle of July, with the thermometer at nearly 100°—only a small part of the fish was eaten. The rest was left in the tin, and was not consumed until three days later, when this stale food caused one child to die and made two or three others sick. Cases investigated in Chicago and other parts

of the United States have had a similar history. Canned salmon should be used only on the day the tin is opened."

I asked Mr. Barker to describe the processes to which the fish is subjected in the cannery.

"In the first place," he explained, "a machine takes off the heads, tails and fins, splits the fish open, and removes the entrails, then brushes and washes the fish inside and out. One machine will deal with twenty-five thousand salmon in a day. Afterwards they go into another apparatus, where they are scraped thoroughly with a knife, while fresh, clean cold water is running on them. Next they go into a bath of water, where they are scrubbed thoroughly with a brush made to fit the fish. Afterwards they are deposited on a revolving frame and cut into slices, which exactly fit the tins, into which they are subsequently inserted with a small quantity of fine Liverpool salt. The filled tins travel on a belt to automatic scales, which throw out any that are light weight, the others proceeding on to a machine which, having closed each tin, cleans the outside with hot water and steam. The lids are now crimped to impart strength, and then the tins are run through a flux and rolled through the hot solder, which sets on a subsequent journey along a twenty-foot belt, the process being assisted by a jet of water. A stay in the coolers is followed by a hot-water test for defective soldering, after which the cans are conveyed to the retorts and cooked, under pressure of steam, for from half an hour to three-quarters. On leaving the retorts they are vented—that is, a hole is opened in the can to allow gases to escape. A drop of solder having been dropped on that hole, there is a second cooking process, to soften the bones and sterilise any air that

A SALMON CANNERY ON FRASER RIVER

CHINESE QUARTER, VANCOUVER, B.C.

may remain in the tin. Finally the tin is washed, lacquered (to prevent rusting), and labelled."

"You have some very clever machinery," I remarked.

"Yes," agreed Mr. Barker. "But it is all going to be altered in the near future. The new way of canning does away with soldering, the lids being fixed by crimping—that is, by overlapping the joined edges with such exactitude that the junction is absolutely air-tight. This year" (1910) "much of the California fruit is being packed that way. Why the innovation affected that industry before it reached the salmon canneries is easily explained. The heat of the soldering copper was apt to candy the sugar in the syrup, making it dark and sometimes causing black specks, which looked like dirt, to settle on the fruit."

"Does soldering involve any similar disadvantage in the case of salmon?"

"No. But soldering necessitates skilled labour, while crimping is done by machinery. That is why we are compelled to make the change, which will put the canneries to very heavy capital expenditure. Skilled labour is becoming scarce and very dear. We have a great many Orientals in the canneries. Chinamen are most reliable and painstaking: they are good mechanics, they don't strike, they don't get drunk, and they are specially adapted for the work that has to be done in a cannery. Previously their labour was cheap, but now that the Government has imposed a head tax of five hundred dollars on every Chinaman who comes into the country, their labour has become dear. One reason why the work does not attract English labour is because it is not constant. The heavy part of it occurs from July 20th to August 25th,

though, of course, the making of the cans takes place before then.

"I well remember when the Chinese first started. I worked then for a man named John West, who had a little cannery on the Columbia River. George W. Hume was the first man who hired Chinamen. He was forced to do so because of the lack of white labour and the unreliability of what he did get. In order to keep sixty or seventy men for two or three months he had to engage from three hundred and fifty to four hundred, because they kept leaving, and they were constantly getting drunk or striking. They were largely runaway sailors and men of that class, who just drifted around, earning a few dollars here and a few dollars there."

"You took your share," I suggested, "of the actual practical work?"

"Oh, yes," said the president of the Packers' Association. "Besides making nets, I fished and lent a hand in all departments."

"No doubt," I further suggested, "there were some interesting human characters in the salmon fisheries in those days?"

"There was Lighthouse Sam for one," Mr. Barker answered. "They called him that because he had once worked in a lighthouse. He was the most reckless man I have ever known, and always getting into trouble. Again and again his boat was capsized and several of his partners were drowned; but Lighthouse Sam seemed to have a charmed life. I well remember the day when one of our men came running in—it was Phil Williams, from Orkney Island—and shouted: 'Lighthouse Sam is gone at last!' Then he told us that the poor fellow's boat was pitching about, bottom-up, in the breakers, and that both hands were drowned.

It seemed that he had left two men trying to rescue the boat—which they did not succeed in doing until an hour afterwards. Then they made an amazing discovery. Lighthouse Sam was underneath, and, although exhausted, quite unharmed, there having been enough air in the bottom of the boat to keep him alive. His mate, as usual, was drowned. After that, I am sorry to say, Lighthouse Sam took to drink, and in the following year he stole a boat, and, securing a partner, sailed up the Pacific coast to do a little fishing on his own account in Shoal Water Bay. The wind blew strongly from the south-east; they were in danger of being swamped, and the reckless mariner headed straight for the shore, undeterred by the sight of heavy breakers. The boat was smashed to pieces, the partner was duly drowned, but Lighthouse Sam got safely ashore. After that he was put into the penitentiary for stealing the boat, and I lost sight of him.

"By the by, Lighthouse Sam was not the only salmon fisherman who survived a cruise with his upturned boat on top of him. A man named Harriman was capsized at the mouth of the Columbia River one Friday at midnight, and when his craft was recovered, on the Monday afternoon, the poor fellow and his boat were high and dry on the beach. He was uninjured—in fact, was soon feeling quite fit again, and, so far as I know, he is fishing there to this day.

"Among the fishermen are a lot of English, Scotch, and Irish, and some of the very best are Norwegians and Danes. There are also many Italians and Greeks. On the Columbia River the boats and nets belong to the fishermen, while here on the Fraser the canneries own all the vessels and gear. The pay is very good

while the work lasts, varying from 150 to 350 dollars for a month and a half or two months.

"Last year," said Mr. Barker, referring to 1909, "the pack was the highest in the history of the business, and amounted to 5,340,000 cases. It was all readily sold. The consumption of tinned salmon in this country is increasing, of course, with the rapid growth of population. Then, too, the English market is again brisk, while we find it impossible to keep pace with the demand from New Zealand and Australia, where the salmon does not occur. This year we could have sold five and a half million cases, but the pack only reached a little over four millions. You may be surprised to note the difference in the quantity caught and canned in 1909 and the quantity caught and canned in 1910. But that was a normal and expected difference. The year 1901 witnessed a tremendous run of salmon, as did the year 1905. There will be another great supply of fish in 1913. It occurs every fourth year with such absolute regularity that we prepare for it by making an extra number of tins. Moreover, new canneries are always set up in the recurring 'fat' year, which is invariably followed by a 'thin' year. The life history of the salmon—from the time spawn is laid in the river to the return into that river of the full-grown fish—is four years; and it is natural, therefore, that the productiveness of each year should be echoed, as it were, in the fourth following year, and in each succeeding fourth year. That may or may not be the explanation. Some people, indeed, seek to identify the recurring 'fat' year and 'lean' year with a corresponding variation in the rainfall. But whatever the cause, it is constant and can be depended upon.

"Apart from that fluctuation in the available quan-

tity of salmon, the supply of fish of almost all sorts on the Pacific coast is beyond anyone's power to gauge. I have seen 35,000 salmon caught in one haul of a seine net. That was in Alaska, where the bulk of the salmon are caught. There is, of course, a tendency for that fish to retire before the advance of a human population. Pollution of the rivers is the actual cause of that retirement, and in British Columbia pollution takes the form of sawdust from the lumber industry. Here, then, we touch the reason why, in my opinion, the Fraser must rank as the finest salmon river in the world. You simply cannot pollute the Fraser."

CHAPTER XIX

BRITISH COLUMBIA AND SOME REFLECTIONS

A MAN might try to describe the Rockies as he sees them from the railway; but he could not succeed. Let me content myself with an ungrateful reflection. The through traveller in that astounding region is sated with scenery—bored with beauty. A hundred grand mountains, entrancing valleys, noble rivers, bewitching glades, and glorious waterfalls—that quantity would leave you still exclaiming, still in an extremity of enthusiasm. But when you have experienced a sunny day and starry night of peerless panorama, and find there is yet more to come, a heaviness comes over your senses. Because the eye has been debauched, the numbed brain can no longer receive definite impressions. In a feeble revolt, and hungry for contrast, you long for a sight of something ugly, like a row of London suburban villas.

Among the mountains there are halting-places of luxury, loveliness, and slippered ease. One of these is Banff, where you may swim in an open-air bath of sulphur water, which flows soft and warm from fiery entrails of the earth. On certain stretches of the line, trains pause beside pretty buildings, where fountains play in gardens ablaze with blossoms, and where in dainty observation-towers telescopes give you intimacy with the stretches of eternal snow high overhead.

BIG TREES IN VANCOUVER, B.C.

Constantly in the hurrying waters of fairy rivers one sees the dismembered trunks of trees—some jolting onwards to be butchered into planks, the respited majority stranded on rocky islands or sandy shores. The trees of Canada are apt to excite one's sympathy. You pass acre upon acre of mountain side that has been swept by prairie fires. They are a pathetic sight—those black, leafless forests of carbon. Some of the abbreviated trunks remain erect, some lean at perilous angles, some are prostrate. The ground is strewn with ashes and sorrow. In those regions of blackness and death, I saw no moving thing, save only, on occasion, a yellow flying grasshopper—a creature that flutters forward slowly, makes a grating noise. Conspicuous among plants that push their way through the desolate ashes is the great willow herb, commonly called the "fire rod." Settlers tell you it appears only on land that has been swept by fire; but there is another justification for the very appropriate name. The spike of ruddy blossoms suggests flame, while the clouds of feathery seed resemble smoke.

The living forests are as inspiriting as the dead forests are depressing. Canada has vast tracts dense with majestic trees, which grow bolt upright to give one another room. In the island of Vancouver, that richly favoured region, I journeyed for hours, in the makeshift rolling stock of a mining railway, through an interminable paradise of lofty trees and lovely undergrowth. Sometimes we zig-zagged on a switchback track right up mountain sides; sometimes we crept cautiously along the edges of deep ravines. Away beyond the forest-wrapped island lay the Pacific Ocean—a broad stretch of soft blue.

Man looks a poor little thing in a forest. But, while

incidentally unafraid of grizzly bears, he exercises over the trees a dominion as absolute as it is tyrannical. Far in the land of shadows and moss I came upon two specimens of my species—mere dots of creatures less than six feet high—who were assaulting a Douglas fir which, with a girth of three yards, rose to an altitude of over a hundred feet. This is what was happening: Standing on spring boards lodged in the trunk some four feet from the ground, they were working their saw towards a V-shaped cut previously chopped on the other side. I was encouraged by example to stand a few yards from the toilers, and facing the back of the saw. The tree, for all that it leaned slightly in our direction, was destined to fall—everybody was positive—on the other side.

A few years ago some men were felling a tall tree in a London suburb, and they worked for many hours with saws, axes and spades, likewise employing an elaborate tackle of ropes; but in the end that tree came down in an unintended direction, doing mischief to a cab horse. My brain was busy with this memory as, with head thrown back, I watched the top of the Douglas fir. It was at least some comfort to reflect that, if human judgment proved at fault, one would see the thing coming, and there should be time to dodge the danger. "She is moving," someone said. I watched intently. Yes, she was—but how gently, slowly, and silently. No one spoke. Without a tremor, that one tufted tree top went on moving softly towards the other tufted tree tops that were motionless, and the direction of the fall was fulfilling prophecy. In the lapse of seconds, slowness became speed, and silence gave place to thunder. Creaking and groaning, the murdered monarch went crashing through the crowded

FRUIT-PICKING IN BRITISH COLUMBIA

company of his fellows, who seemed to yell with pain as their limbs were bruised and torn by the helpless falling form, which struck the ground with the report of cannon. Under the soles of my feet I felt the earth heave, and then came the gentle patter of a shower of branches.

Perspiration was streaming down the hairy chests of the woodmen. They told me why they waste so long a stump. The base of the tree is charged with resin, which proves an obstacle to the saw. They also told me that they can "throw" a tree in any direction with precision. Man's mastery over these wooden giants is, indeed, complete. Elsewhere in the forest we saw a felled tree of formidable dimensions girt about with steel wire, which extended through the undergrowth to a raised platform beside a railway line. Presently from that platform there came the hullabaloo of escaping steam and revolving wheels, the steel wire tightened, and the huge bulk was hauled with contemptuous ease through the wilderness of ferns and shrubs. At an incline of stout logs some show of resistance was made, but the engine gave a vicious snort, and the poor old tree, jerked out of his momentary anchorage, was dragged without ceremony on to the platform. Anon we saw noble firs subjected to further indignities, they being either towed or shoved by a locomotive along a timbered track. Still later we beheld them drawn from the water into a saw-mill, whence they emerged as clean yellow planks, which were loaded into a steamer soon to depart for Liverpool.

There are growing communities of luxurious families who—in both senses of the phrase—live on fruit ranches in British Columbia. They dwell in paradise, and find it pays. But I have qualms about advertising their

felicity. The existence seems to be altogether too restful and romantic to be deserved by mortal man. Instinctively I find myself recommending to my friends the prairie homestead rather than the British Columbia orchard.

Life on the plains is delightful enough in all conscience. It is good to wander in the sunny prairie, looking at the flowers, birds, and insects. Swallows and blackbirds occur in clouds. Pairs of milk-white doves float amorously by. There are rooks far in excess of the farmers' wishes. You will occasionally see a robin that is larger and lankier than the English kind, suggesting a tiny eagle. In Eastern Canada I saw many sparrows, and Professor George Bryce, of Winnipeg College, told me these adventurous little immigrants have spread across the continent within his memory. They were introduced from England by ladies who, in 1880, made pets of them on Boston Common. Around Portage la Prairie I saw humming birds—sprightly scraps of gorgeousness. Prairie chickens and pin-tailed grouse are never far to seek. On almost every stretch of water you see cosy companies of wild duck among the lilies and rushes; while geese, swans, pelicans, herons and snipe may there be seen.

In sheltered places the little garter snake makes his home. When Winnipeg Penitentiary was being built, the workmen discovered thousands of these harmless reptiles in a neighbouring cave. Minks, weasels, squirrels, badgers and gophers are common enough. The gopher is a grey little creature something like a rat and more like a squirrel. He has the queerest way of squatting bolt upright upon his haunches, and staring defiance at passing carriages and trains. Often he holds

a stalk of bearded grass in his mouth, and this gives him a comical whiskered appearance.

Frequently in the great grain district one sees the "French weed" (*Thlaspi arvense*), which seeds in silver discs. It is the farmer's chief pest, being highly prolific and difficult to eradicate. In France, its native land, this innocent-looking member of the mustard family grows within decorous bounds, giving no trouble to agriculturists, so that French visitors to Canada resent the ill-will it there excites. The wild mustard, accidentally introduced in wheat imported years ago for cultivation, is another agricultural nuisance, though it works less havoc than the native thistle—a bright-hued offender. A while ago the Russian thistle filled farmers with fear, but stern measures were taken, and it has been exterminated. Many a flowery stretch of land owes part of its beauty to the wild oat, a frail, fluffy growth whose seed sails for miles at the impulse of the gentlest breeze.

I think Canada's chief charm is her people, with their delightful freedom from snobbishness and their sense of the dignity of labour. Prime Ministers of Provinces give themselves no airs of superiority, and, so far as manner is concerned, there is nothing to distinguish a railway director from a railway porter. One class, however, does seem to occupy a position of some superiority. I refer to shoe-blacks. It is not in my heart to begrudge them their exaltation of spirit. They are artists. Canadians, not particularly concerned about dress in a general way, have agreed in attaching great importance to a well-polished boot. In the haphazard British Isles almost anyone is considered capable of applying blacking and brushes to footgear, but in

Canada the operation ranks as an art, whose professors are understood to have been born with their special aptitude. Britishers on a first visit to the Dominion mechanically place their boots outside their bedroom doors on retiring for the night. How the bell boys smile! The desired end is not to be attained that way. In the morning you must go yourself, with your boots on your feet, to one of the palatial saloons where the art is practised. The result, attained by protracted and cunning exertions, is sure to surprise and please you. Nay, in the joy of finding your boots transformed to mirrors, it is likely you will not bewail the substantial fee demanded.

It is, by the way, a curious feature of the country that it dispenses with small payments. A box of matches, a newspaper, a tram ride—for each of these, five cents is the charge. A bronze coinage exists, but it can hardly be said to be used; indeed, in the west, shopkeepers refuse to accept it. The only thing you can buy for two cents, so far as my experience goes, is a postage stamp of that value. But note the happy significance of this disdain of coppers. Money is a utility constantly accessible to all classes in Canada, every form of manual and mental labour yielding in that country an easy margin beyond the living wage: wherein lies the difference between Great Britain on one side of the Atlantic and Greater Britain on the other —between the small country at the zenith of its development and the large country that offers ever-widening opportunities to industrious humanity.

Of what the Dominion is, and of what it will become, I have attempted to afford some glimpses in this book, which haply may assist in stimulating young Britons to cross the sea and enter into their inheritance.

And with Canada's expansion we may dream of the day when our Empire, grown strongest on the North-American continent, shall join with the sister democracy of the United States in leading the world to universal peace.

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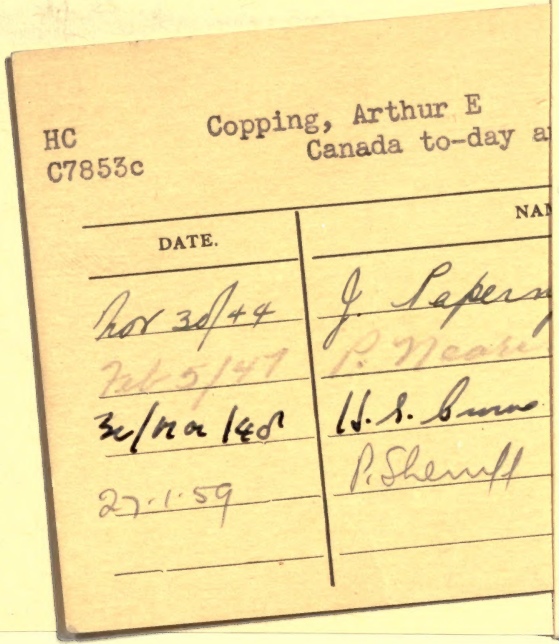

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